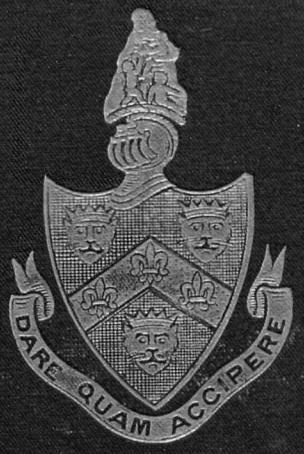
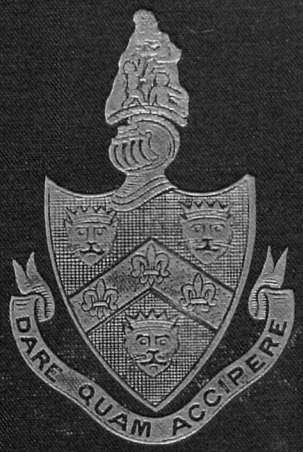
GUY'S
HOSPITAL
GAZETTE

NEW SERIES
VOL. 38.

1924.



Guy's Hospital Gazette.



Guy's Hospital Gazette.

GUY'S HOSPITAL GAZETTE.

VOL. XXXVIII.

NEW SERIES.

1924.

LONDON:
ASH & Co., Ltd., Printers, Southwark, S.E.
1924.

INDEX.

A

PAGE

Abdomen, The Acute, from the Point of View of the General Practitioner... 35
Accounts in General Practice. J. H. E. Winston 391
Acidosis. The Treasurer's Prize Essay. Norman Burgess 279
Alice's Adventures 514
A Glimpse of the Future. C. P. B. 293
Anæsthesia, Local, Clinical Aspects of. F. N. Doubleday 360
Anatomy 442
Andreoletti, V. E. An Appreciation... ... 217
Death of 226
André Vésale: The Man who decided when Doctors Disagreed. W. Bailey Kempling. 587
Anorexia. Clinical Lecture. Dr. J. A. Ryle 305
Appointments—
Civil 111, 120, 208, 224, 292, 316, 554
Guy's Hospital 292, 300, 316, 354
Naval 501
A Retrospect (1869—1924) ... 508, 528, 555, 585
Athletic Club 40, 182, 247, 250
Sports 211
Inter-Hospital Sports... 273
Aural and Laryngological Department... ... 446

B

Baby Ward, Festivities in 592
Bacteriology 444
Barrionuevo, J. M.... 41
Berry, J. Allan. A Case of Fragilitas with Blue Sclerotics 450
A Case of Hay Fever and Idiosyncrasy to Certain Fish Foods Relieved by Vaccines 594
Bibliography of the Published Writings of W. H. A. Jacobson 484
Bicentenary Appeal 302, 331, 358, 359, 427, 451, 502, 507, 527, 574
List of Donations 547
Billingham, K. C. Insulin 95, 121
Bingham, W. E. Porcelain Inlays 105
Biology 442
Birth Control. C. P. Blacker... 458
Paper Read before the Physiological Society by C. P. Blacker... ... 559, 577
Births 20, 40, 116, 164, 180, 208, 224, 300, 328, 356, 448, 544, 572, 600
Blacker, C.P. Birth Control 458
Birth Control. Paper read before the Physiological Society 559, 577
Blackfriars Bridge, The Discovery of. A suggested ramble 218
Blatherwick, Henry. Obituary... 94
An Appreciation 133
Blues Committee 419
Blues, Award of 600
Boat Club 206, 244
Dance 21
Inter-Hospital Race 182

PAGE

Bones, The treatment of, produced by Accident or Disease . E. W. Hey-Groves 2, 22, 42, 69
Books 397, 448
Bostock, Eric W. 120
Bovril Hospitals' Competition 94
Boxing, Inter-Hospital Competition ... 147
British Empire Exhibition 165
British Medical Protection Society 20
Brooke, R. Early Pericardotomy in the treatment of Pericarditis Secondary to Osteomyelitis of Bone 263
Bulleid, Arthur. Clinical Lecture. Bacteriology of Dental Caries 455
Burgess, N. A case of Malignant Tumour of Left Kidney, associated with Acute Parenchymatous Nephritis and Uræmia... 59
Treasurer's Prize Essay. Some Observations on Acidosis 279

C

Caries, Dental, Bacteriology of. Clinical Lecture. Arthur Bulleid 455
Change of Address 20, 34, 63, 116, 120, 146, 164, 180, 207, 224, 245, 262, 300, 328, 356, 372, 400, 412, 454, 501, 518, 537, 554, 600
Change of Name 20, 414
Chemistry 442
Clinical 444
Children's, The, Department 445
Children's Ward Party 19
Christmas Cards 548
Proceeds of Sale of 21
Christmas in the Hospital 13
Clinical Lectures—
Mr. Arthur Bulleid—
Bacteriology of Dental Caries ... 455
Dr. J. J. Conybeare—
Influenza 429
Mr. C. H. Fagge—
Injuries of the Knee Joint 549
Dr. J. A. Ryle—
Anorexia 305
Obscure Pyrexia 486
Mr. E. G. Slesinger—
Fractures of the Lower End of the Radius 166
Surgery in Exophthalmic Goitre ... 383
Dr. C. P. Symonds—
Encephalitis Lethargica 183
Cloud, Frank. Obituary 118
Clubs' Union 428
Blues Committee 419
Membership Cards 358
Rules, Alterations 419
Concerts, Ward 13
Conybeare, J. J. Appointed Assistant Physician 182
To Those Entering the Wards 423
Clinical Lecture. Influenza 429

PAGE

Correspondence—
Major C. H. Reinhold, I.M.S.—
A Case for Diagnosis 220
T. Reuell Atkinson—
Courtesy at Guy's 243
C. Marsh Beadnell—
Another Perfect Diagnostician ... 520
C. P. Blacker—
Birth Control 458
David S. Davies—
Hydrocele 485
C. A. H. Franklin—
The Gazette Arms 376
Richard Gillbard—
Mark Rutherford 144
R. E. Havard—
Physiological Society's Minute Book 90
Roy C. Holloway—
Rugby Football Club 37
Rugby Football 160
Rugby Football 166
Gerald S. Hovenden—
Guy's '89 Club 160
T. B. Johnston—
Fison Memorial Fund 540
Richard Kay—
The History of Guy's 38
K. S. Keele—
The Rowing Cup Retained 221
B. L. Laver—
Notes from America 61
Thoracic Surgery 143
Notes from America 205
C. Lewis Leipoldt—
The Hamilton Medal 416
T. B. Layton—
Coin-Catchers and Probangs... ... 595
Alfred Linnell—
Rugby Football 169
Neville Lloyd—
Clubs' Union Rules 144
S. P. Meacock—
Clubs' Union Council 520
W. M. Mollison—
Guy's Hospital Musical Society ... 205
R. C. Mullins and K. B. Alexander—
Subscriptions to the Gazette... ... 38
G. W. Nicholson—
Religion and the Growth of Knowledge 159
Nemo—
A Yarn 376
Frank J. Nicholls—
Cricket 273
Post Trigenta Annos—
The Post-War Patient... 376
A. G. Millott Severn—
A History 400
J. A. Ryle—
Anorexia 349
D. Gordon Sharp and David S. Davies—
The Residents' Play 90
Gerald Sichel—
The Appendix in the Acute Abdomen 60
C. P. Symonds—
Anorexia 349
Arthur Tom—
Rowing Club Dance 62

Correspondence—*continued.* PAGE
R. L. Wason—
Scoring in Rugby Football 242
F. R. Watson—
Debt Collection 520
Geo. A. Winston—
The Wills Library 242
Cricket 301, 330
The Fagge Firm v. "The Indefaggables" 222
Past v. Present... 332
The Rowland's Firm v. The Fagge Firm 324
v. Westminster Bank 321
v. Chelmsford 321
v. Crofton Park 322
v. Old Charlton 322
v. St. Mary's 323
(Inter-Hospital Cup)
v. University College Hospital 324
(Inter-Hospital Cup)
v. St. George's Hospital 324
(Inter-Hospital Cup)
v. St. Thomas's Hospital 351
(Inter-Hospital Cup Final)
v. Hampstead 378
v. Catford Wanderers 378
v. Honor Oak 378
v. Old Whitgiftians 398
v. Cane Hill 398
v. Bexley Mental Hospital... 399
Crimes of Violence. Sir Bernard H. Spilsbury 155
Cross Country 63, 114, 131
Kent-Hughes' Cup 132
v. South London Harriers "A" 40
v. Westminster Bank 40
v. Orion Harriers "A" 131
Hare and Hounds 417
United Hospitals 441

D

Deaths 116, 248, 276, 328, 356, 400, 476, 521, 600
Dental Board of the United Kingdom. Election 242
Dental School 28, 447, 518
Appointments 292
Dental Society 92
Annual Dinner 163, 600
Presidential Address 588
Some Points from the Evolution of Teeth in Man. C. H. Edney 170, 195
Dentistry—and the Spanish Inquisition ... 90
Dermatological Department 446
Diagnostician, The Perfect 497
Dickens Southwark, The Discovery of ... 493
Disguysed Minstrels 575
Doubleday, F. N. The Clinical Aspects of Local Anæsthesia 360
Dowling, G. B. Appointed to Skin Department, Miller General Hospital 554
Dowsett, E. B. Prevention and Treatment of Septic Teeth in Children 258
Duodenum, A Case of Congenital Stenosis of. E. C. Seward 433

E

Editors, Past, Appeal to... 572
Edney, C. H. Some Points from the Evolution of the Teeth in Man 170, 195
Electrical and Actinotherapeutic Department 447

PAGE

Elliott, Edgar 304
Empyema, The Surgical Treatment of. The Physical Society's Prize. Eric Wornum... 337
Encephalitis Lethargica. Clinical Lecture. Dr. C. P. Symonds 183
Endocarditis, Malignant, Description of, and Proposals for its Investigation 531
Essays, Maynard Prize 416
Exophthalmic Goitre, Surgery in. Clinical Lecture. E. G. Slesinger 383
Extractions, Difficult. C. A. Wakeford ... 29, 50
Eyes, On the Changes due to Age found in and around the. Arthur W. Ormond ... 152

F

Fable of the Superior People... 270
Fagge, Mr. C. H. Clinical Lecture. Injuries of the Knee Joint 549
Fencing 92, 148
v. Oxford 599
Fison Memorial Lecture 149
Five Miles Handicap 40
Football (Rugby) 66, 149, 382, 402, 417, 440
Annual Dinner... ... ... 182, 206 221
Fixture List, 1st XV., 1924—25 441
International Matches at Twickenham ... 474
Statistics 37, 160
Inter-Hospital Cup Draw 19
v. Old Alleynians 19
v. Birkenhead Park 62
v. Gloucester 62
v Cambridge University 91
v. Old Leysians 91
v. University College Hospital 91
(2nd Round Inter-Hospital Cup)
v. Old Merchant Taylors 39
v. Bristol 39
v. Devonport Services 112
v. United Services 112
v. Plymouth Albion 113
v. Birkenhead Park 130
v. Bart.'s 130
(Inter-Hospital Cup, Semi-Final)
v. Swansea 161
v. Catford 440
v. Coventry 473
v. United Services 473
v. Gloucester 499
v. Bristol 499
v. Harlequins 523
v. Old Blues 523
v. Coventry 542
v. London Scottish 570
v. London Welsh 570
v. Blackheath 570
v. Richmond 597
v. Aberavon 598
Football (Association) 441
v. R.E. (Chatham) 114
v. Middlesex Hospital 114
(Inter-Hospital Cup, Semi-Final)
v. H.A.C. 114
v. Bart.'s 146
(Inter-Hospital Cup Final)
v. Middlesex "A" 131
(Semi-Final Junior Hospital Cup)
v. R.M.A. "A" 131

PAGE

Forty. D. H. Obituary... 94
An Appreciation 133
Fractures of the Lower End of the Radius. Clinical Lecture. Mr. E. G. Slesinger ... 166
Fragilitas Ossium, A Case of, with Blue Sclerotics 450
Fraser, Dr. James Alexander. Obituary ... 211

G

Gathergood, G. W. Awarded Newland-Pedley Gold Medal for Operative Dentistry ... 457
Genito-Urinary Department 447
George Inn, The Discovery of 346
Gertrude Pye-Smith Endowment Fund 450, 469, 572
Glory of the Club, The 466
Goitre, Exophthalmic 128
Surgery in. Clinical Lecture. Mr. E. G. Slesinger 382
Golf 178, 206, 275, 300, 476, 542, 599
Staff v. Students 222
Goschen, Viscount. Resignation of Treasurership 65
"Gramenapis." The Perfect Diagnostician ... 497
Guyoscope 21
Guy's 115
Guy's Hospital—
Abstract of Summary of Anæsthetics and Operations for the year 1923... ... 134
Aldwych Theatre Matinee 93
Annual Dance 146
Bi-Centenary Appeal—see Bi-Centenary Appeal.
Boxing 114
Chapel 116, 145, 164, 224, 530, 600
Charity Matinee 146
Christian Union 146, 543
Clubs' Union—see Clubs' Union.
Collection for 250
Convalescent Homes 38
'89 Club 160
Employees' Association Annual Dinner ... 538
Gazette, Bicentenary Number 586
Ladies Association 211
Musical Society 63, 65, 126, 419, 544
Concert 546, 575
Nurses' League... 239
Pharmacopœia 112
Reports 304
Swimming Club, Its History and Successes 177
Time Table in the Out-Patient Department 276
Time Table, Winter Term, 1924... ... 465
Ward Collections 38

H

Haldane, J. S. Religion and the Growth of Knowledge 136
Hale-White, R. Elected President of the Residents 211
Hare and Hounds—see Cross Country.
Harmsworth Memorial Research Fund, Report of the Trustees of 531
Hay Fever, A Case of, and Idiosyncrasy to Certain Fish Foods by Vaccines. J. Allen Berry 594
Heatherley, Francis. The Light Side of a M.O's Life in the Army 190, 212, 234, 265, 287, 311

PAGE

Heliotheraphy. Dr. Rollier 182, 227, 251
Hey-Groves, E. W. The Treatment of Injuries of the Long Bones Produced by Accident or Disease 2, 22, 42, 69
Hickman, Mr. Inter-Hospital Ski Competition 66
Hockey Club 275
Junior Inter-Hospital Cup... 148
v. Bart.'s 476
v. R.M.C., Sandhurst 524
v. R.N. and R.M. Chatham 543
v. Wellington 543
Hospitals' Competition 94

I

Illustrations—
Athletic Sports... 274
Brighter Guy's 353
Mr. Bulleid 367
Mr. Kelsey Fry 394
"I'll Build a Stairway to Paradise" ... 519
W. H. A. Jacobson 478
M. S. Pembrey 584
The Rowing Club 244, 245
Rubber D—mn 413
The Sausage Machine 390
Lauriston E. Shaw 12
Summer in the Park... 366
"The Niggers" 14
The New Director (V. E. Lloyd)... ... 327
"Trojan" 506
Why go to Wembley for Thrills? ... 318
Income Tax and Super Tax 504
Incorporated, The, Association of Hospital Officers 276
Influenza. Clinical Lecture. J. J. Conybeare 429
Inquest Fees for Doctors 583
Insulin. K. C. Bellingham 95, 121
An Analysis of the Government Booklet on 286

J

Jacobson, W. H. A. Obituary... ... ...426, 479
Bibliography of the Published Writings of 482
Junior Guyite Club, Annual Dinner 165, 243

K

Kempling, W. Bailey. André Vésale... ... 587
Kendall, N. E., Farewell Dinner to 469
Kent-Hughes Cup 132
Kidney. A Case of Malignant Tumour of the Left Kidney, Associated with Acute Parenchymatous Nephritis and Uræmia. N. Burgess 59
Kitchen, Edward. Obituary 204, 227
Knee Joint, Injuries of. Clinical Lecture. Mr. C. H. Fagge 549

L

Lambeth Palace, The Discovery of 386
Landon Out-Patient Tea Fund 144, 545
Lansdown, R. G. P. Obituary... ... ... 94, 150

PAGE

Lawn Tennis—see Tennis.
Lectures, University of London... 179
Leeming, A. Norman. American Notes after a Visit to the Mayo Clinic... 403
Lewin, John. Change of Name... 414

M

MacArthur, Bt., Lt.-Col. W. P. The Elementary Principles of Zoological Nomenclature 79
Marriages 20, 116, 132, 248, 300, 328, 356, 420, 448, 476, 521, 544, 572, 600
Marriott, H. B. Obituary 484
Massage Department 447
Maynard Prize Essays 416
Mayo Clinic, American Notes after a Visit to. A. Norman Leeming 403
Medical Education in the Pre-Clinical Period 425
Medical Wards 444
Medicine in the Making 373, 395 415
Medico-Neurological Department 446
Medlock, C.H. 226
Farewell Dinner to 469
Morgan, O. G. Appointed Assistant Ophthalmic Surgeon 382
Motor Show at Olympia... 503
Musical Society. "Trial by Jury"... ... 21

N

Newland-Pedley Prize Thesis 29, 50
Gold Medal 457
Nicholson, Nurse, Death of 250
"Niggers," Christmas 1, 13
Niggers 591
Notices—
Dental Prize 224
Disposal of Dental Practice in South Africa 335
Liverpool and North Western Guy's Re-Union 485
Nurses' Dance 19

O

Obelisk, The Discovery of the... ... ...510, 534
The Elusive 589
Obituary—
Henry Blatherwick 94
Frank Cloud 118
Edgar Elliott 304
Daniel Herbert Forty 94
Dr. James Alexander Fraser 211
W. H. A. Jacobson 426, 479
Edward Kitchen 204, 226
R. G. P. Lansdown 94, 150
Horace Bruce Marriott 484
W. D. Pitt-Payne 204
Dr. Edgar Reid 426
John St. Clair Shadwell 547
Lauriston E. Shaw 11, 66
Obstetrics and Gynœcology 445
Ophthalmic Department 446

PAGE

Ormond, Mr. Arthur W. On the Changes due to Age found in and around the Eyes 152
Orthopædic Department 446
Osteology 448

P

Papers by Guy's Men 28, 63, 92, 111, 127, 135, 164, 208, 245, 316, 335, 400, 418, 437, 471, 501, 537, 588
Passim 1, 20, 41, 65, 93, 117, 133, 149, 165, 181, 209, 226, 250, 277, 301, 330, 358, 381, 401, 422, 450, 477, 505, 525, 546, 574
Pass List—
Conjoint Board 69, 116, 207, 355, 418, 500, 544
D.P.H. 207
L.D.S. 115, 145, 207, 248, 355, 501, 599
Royal College of Physicians—
M.R.C.P. 69
Royal College of Surgeons 286
F.R.C.S. 20
Society of Apothecaries 40, 69, 116, 248, 286, 418, 518, 600
University of London—
M.B., B.S. 40 164, 248, 286, 355, 380 600
M.D. 20, 355
M.S. 355
University of Oxford—
B.M., B.Ch. 20
Pathology 443
Pembrey, M. S. Medical Education in the Pre-Clinical Period 425
Pericarditis, Early Pericardotomy in the Treatment of, Secondary to Osteomyelitis of Bone. R. Brooke 263
Pharmacy, Materia Medica, and Dispensing 447
Physical Society. The Surgical Treatment of Empyema. Prize awarded to Mr. Eric Wornum 337
Physics 442
Physiological Society 125
Paper on Birth Control read by C. P. Blacker 559
Physiology 443
Pitt-Payne, W. D. Obituary 204
Poland, Mrs., Retirement of 457
Porcelain Inlays. W. E. Bingham 105
Pritchard, Richard. Presidential Address to Dental Society 588
Prizes. Dental 224, 304, 335
Guy's Hospital Medical School 304
Operative Dental Surgery 164
Psychological Problem 110
Publications Received 34, 63, 208, 262, 304, 335, 372, 397, 437, 471, 504, 554, 586
Pupils' Physical Society... ... ...248, 467
Pyrexia, Obscure. Clinical Lecture. Dr. J. A. Ryle 486

R

Radius, Fractures of the Lower End of the. Clinical Lecture. Mr. E. G. Slesinger ... 166
Reid, Dr. Edgar. Obituary 426
Religion and the Growth of Knowledge. J. S. Haldane 136

PAGE

Residents' Theatricals 21, 41, 65
"What will Matron Say?" 84
Reviews—
J. Johnson Abraham. Lectures on Gonorrhœa in Women and Children 223
A Medical Guide to the Principal British Spas and Climatic Health Resorts 397
Beatrice Agar. British Red Cross Society Junior Nursing Manual 521
Baillières Popular Atlas of the Anatomy and Physiology of the Male Human Body 151
E. C. Barton. How to Nurse Cancer Patients 204
Hugh Wansley Bayly. Venereal Disease 299
Sir John Bland-Sutton. Orations and Addresses 319
Ironside Bruce. A System of Radiography 377
William Boxwell. An Introduction to the Practice of Medicine 521
P. J. Cammidge. The Insulin Treatment of Diabetes 335
Cammidge and Howard. New Views on Diabetes 319
Harry Campbell. Man's Mental Evolution, Past and Future... 179
Fundamental Principles in Treatment 470
D. W. Carmalt-Jones. Organic Substance, Sera and Vaccines 203
Catechism Series on Public Health ... 246
A. Clarke. Insulin in General Practice 202
Ernest Clarke. The Refraction of the Eye 566
W. M. Crofton. An Outline of Endocrinology 319
Cumming and Joll. Aids to Surgery ... 541
H. E. Cuff. Practical Nursing 335
J. F. Halls Dalby. High Blood Pressure 272
H. C. Rutherford Darling. Elementary Hygiene for Nurses 320
H. A. Ellis. Reaction in Relation to Disease 335
A. G. Timbrell Fisher. Internal Derangements of the Knee-Joint 246
Duncan C. L. Fitzwilliams. On the Breast 397
Frederick Gardiner. Handbook of Skin Diseases 320
G. R. Girdlestone and Mrs. Hey Groves. The Care and Cure of Cripple Children 202
Thomas Goodhugh. Prosthetic Dentistry 204
Ernest H. Griffen. Adventures in Tripoli 564
Guy's Hospital Reports 246, 378, 597
Sir W. Hale-White. Materia Medica, Pharmacy, Pharmacology and Therapeutics 200
Arthur J. Hall. Epidemic Encephalitis... 417
B. Burnet Ham. A Synoptic Chart of Skin Diseases 320
R. W. Harris and Leonard S. Sack. The Medical Insurance Practice 377
Francis Heatherley. Modern Methods in the Diagnosis and Treatment of Heart Disease 203
Leonard Hill. Sunshine and Open Air 246

Reviews—*continued.* PAGE

Arthur F. Hurst. Essays and Addresses on Digestive and Nervous Diseases, and on Addison's Anæmia and Asthma 564
Robert Hutchinson and Harry Rainy. Clinical Methods 541
Charles F. Jenkins. Tortola: A Quaker Experiment of Long Ago in the Tropics 201
Sir Thomas Lewis. Clinical Electro-cardiography 246
M.A.B. 204
P. McBride. Psycho-Analysts Analysed... 201
W. MacKenna. Diseases of the Skin ... 299
Hugh Maclean. Modern Methods in the Diagnosis and Treatment of Glycosuria and Diabetes 202
A. G. Magian. Synopsis of Midwifery ... 376
H. C. Malleson and A. Bulleid. Practical Dental Histology and Bacteriology 129
W. Harrison Martindale and W. Wynn Westcott. The Extra Pharmacopæia 564
May and Worth. Diseases of the Eye... 567
Leonor Michaelis. Practical, Physical and Colloid Chemistry for Students of Biology and Medicine 377
John Muir. A Manual of Practical X-ray Work 299
Modern Diagnosis and Treatment of Syphilis, Chancroid and Gonorrhœa 437, 470
Sir Berkeley Moynihan. Gastric and Duodenal Ulcer 203
The Nursing Mirror Pocket Encyclopedia and Diary 204
Georges Pontmann. Ear, Nose and Throat Treatment in General Practice ... 377
T. H. Bryce. Quain's Elements of Anatomy (Vol. IV., Part II., Myology) ... 203
L. Bathe Rawling. Landmarks and Surface Markings of the Human Body 521
Rose and Carless. Surgery... 521
H. St. John Rumsey. No Need to Stammer 200
Olive F. Sands. Massage of the Head, Face and Neck 396
G. F. Still. Common Disorders and Diseases of Childhood 320
W. C. Sullivan. Crime and Insanity ... 395
J. Tait and R. A. Krause. Aids to Physiology 151
"Ten Teachers." Diseases of Women ... 396
F. H. Thomson. The Diagnosis and Treatment of the Infectious Diseases ... 565
Sir Frederick Treves and Johnathan Hutchinson. The Student's Handbook of Surgical Operations 203
A. Logan Turner. Diseases of the Nose, Throat, and Ear for Practitioners and Students 471
G. H. Varley. Radium: Its Therapeutic Uses in General Practice 319
Prof. Swale Vincent. An Introduction of the Study of Secretions 203
H. W. C. Vines. The Parathyroid Glands in Relation to Disease 319
J. Sim Wallace. Oral Hygiene 396
Gerald B. Webb and Charles T. Ryder. Recovery Record for use in Tuberculosis 200

Reviews—*continued.* PAGE

O. L. V. de Wesselow and J. M. Wyatt. Modern Views on the Toxæmias of Pregnancy 471
Gwynne Williams. Minor Surgery and Bandaging 272
R. C. Wingfield. Modern Methods in the Diagnosis and Treatment of Pulmonary Tuberculosis 470
John Wishart. A Whiff of Old Times... 272
Younger-Smith. Insanity 202
Rollier, Dr. Lecture of Heliotheraphy 151, 182, 227, 251
Rowlands, Mr. R. P. Perforated Peptic Ulcer 58
Royal College of Surgeons of England ... 64
Election to the Council 146
Ryle, Dr. J. A. Clinical Lecture. Anorexia 305
Clinical Lecture. Obscure Pyrexia ... 486

S

Sawday, A. Ernest. Surgical Cleanliness ... 299
Seelenfreund, Harry. Change of Name ... 20
Septic Teeth in Children, Prevention and Treatment of. E. B. Dowsett 258
Seward, E. C. A Case of Congenital Stenosis of the Duodenum 433
Shadwell, John St. Clair. Obituary 547
Shaw, Dr. Lauriston 1, 41
Obituary 11, 66
Shooting 326, 379
Sleepy Sickness 395
Slesinger, E. G. Clinical Lecture. Surgery in Exophthalmic Goitre 383
Some Points from the Evolution of the Teeth in Man. C. H. Edney 195
Southwark, Dicken's, The Discovery of ... 493
Southwark Cathedral, The Attempted Discovery of 368, 407
Southwark League for the Discovery of London 589
Specialities—
"Angier's Emulsion" 572
Another "Acoustique" Innovation ... 208
"Artox" Bread 224
Birk's Junket Powder 164
"Blood Pressure Simplified" 356
Cyder 356
"Dorsella" Milk Food 420
Electro-Medical Apparatus 328
"Golden Shred" Mincemeat 524
"Granola" Digestive Biscuits 524
"Harvp" 92
The Lancashire and General Assurance, Co., Ltd. 208
New Zealand Prepared Cream 420, 476
"Swan Vestas" 164
The "Gem" Turkish Bath Cabinet ... 224
"The Proper Adjustable Foot Rest" ... 524
"Recto-Dent" 420
Rouse & Sons ,Ltd ... ...
"Silver Shred" Lemon Marmalade ... 400
Sun-Ray Arc Lamps for Actino-Therapy 572
The "Gem" Pure Water Still 40
The Medical Motor Policy 380
The Pure Lemon Juice Co., Ltd.... ... 420
Spence, P. D. B. 478

PAGE
Spilsbury, Sir Bernard 93
Crimes of Violence 155
Sports, see also Athletic Club
Students' Club Library, Catalogue of Books 411, 438, 472, 503, 522, 567
Sudan Medical Service 374
Superior People, The Fable of 270
Surgical Cleanliness. A Ernest Sawday ... 299
Surgical Wards 445
Swimming Club 247
Annual Dinner 571
Its History and Successes... 177
Nurses' Inter-Hospital Gala 475
United Hospitals' 250, 326
Symonds, Dr. C. P. Clinical Lecture. Encephalitis Lethargica 183

T

Teeth, Evolution of, in Man. Paper read before the Guy's Hospital Dental Society. C. H. Edney 170
Teeth, Septic, Prevention and Treatment of, in Children. E. B. Dowsett 258
Tennis 354, 475
Election of Officers 40
Lane-Washbourn Cup 475
v. Priory Park Lawn Tennis Club ... 275
v. *Beddington Park* 300
v. Royal Dental Hospital 1st VI. 300
v. University College Hospital ... ... 354 (Inter-Hospital Cup)
v. St. Thomas's Hospital 2nd VI. ... 354 (Junior Inter-Hospital Cup)
v. Thames Ditton 475
v. King's College Hospital 475
Tetanus, Local, A Case of 128
The Light Side of a M.O.'s Life in the Army. Francis Heatherley 190, 212, 234, 265, 287, 311
The Perfect Diagnostician... 497
The Whirl we Live in 317, 366, 414
Thirty Club. Annual Dinner 20
Tibirium Dremens 151
Treasurer's Prize Essay. Some Observations on Acidosis. Norman Burgess 279
Trial by Jury 21
Tuberculosis Department 447
Tumour, Malignant. N. Burgess 59
Turner, Mr. Philip. Candidate for Election to the Council of the Royal College of Surgeons 146

U

PAGE
Ulcer, Perforated Peptic. R. P. Rowlands ... 56
United Hospitals—
Hare and Hounds 39, 441, 500, 542, 571
v. S.L.H. "A" 599
Sailing Club 132, 161, 223, 349, 474, 500
University of London 64
Lectures 179
O.T.C. Medical Unit 435
Union Society 165

V

Venereal Diseases Department 446
Vacancy of Director 226
"Victor" 217

W

Wakeford, C. A. Difficult Extractions ... 29, 50
Wards, To those Entering the. J. J. Conybeare 423
Water Polo 399
Wenckebach, K. F. Lecture on Cardiac Disease 211
Whitbread, F. P. Appointed Treasurer ... 65
Wills Library. Books missing from 242
Improvements in 149
Winston, G. A. R. Bibliography of the Published Writings of W. H. A. Jacobson ... 482
Winston, J. H. E. Accounts in General Practice 391
Wornum, E. Elected Treasurer of the Residents 211
The Surgical Treatment of Empyema. The Physical Society's Prize 337

Z

Zoological Nomenclature, The Elementary Principles of. Bt. Lt.-Col. W. P. MacArthur 79

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery and Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *January 5th, 1924.* *Number 926*

PASSIM

WITH the very best wishes for the New Year, we send to our readers the GAZETTE in its new attire with the hope that the clearer print will make it easier to read, while the matter printed makes it more than ever enjoyable. We ourselves started the New Year well by enrolling a large staff of special correspondents, some fourteen in all, who were sent to report the Christmas Ward Concerts. How well they fulfilled their task you can judge for yourselves, how hard we had to work to get them to do so you will never know, unless we tell you—which we shall now do. At the usual time of going to press, everyone of them had entirely forgotten his oath as a "special," most had taken no notes of the concerts, and the only two adjectives that anyone could call to mind were "excellent" and "charming." We drove them into corners and stood over them muttering "exquisite," "refined," "full-throated," "unparallelled," and "magnificent" until the reports, as you may now read them, were written.

CHRISTMAS has passed as pleasantly as usual. Everyone has been in holiday mood, except, perhaps, for the few hours following breakfast, when some were inclined to be moody. The Niggers carried out their long programme on Christmas Day, and though finishing weaker, both vocally and numerically, than they began, were still quite audible. They have since visited both Lambeth and Rotherhithe Infirmaries to entertain the patients there and to be themselves feasted right royally. The Concerts were of the "Command Performance" standard, very many well-known artistes coming down to sing between the afternoon and evening performances, an action which was deeply appreciated by the entire Hospital. The dances were quite the best that are remembered among the present Guy's men and women, and the only tragedy, of which we heard, was the isolation of the baby-ward, owing to a recent case of measles there. Even under the restrictions, necessarily imposed, the party there was still held, and the conjurer performed to a small but appreciative audience. Most of us have now quite settled down again to work and look forward to the last of the season's festivities, "The Residents' Play," preparations for which we hear are already being made. The play, as is usually the case, will be presented in February.

IT is with the deepest regret that we announce the death of Dr. Lauriston Shaw, consulting physician to the Hospital, and one of its most distinguished sons, for whom a memorial service was held in the chapel on Saturday last. We reproduce in this number a photograph and a short account of his life, and hope in the next number to publish appreciations of his life and work by some of his colleagues. To his family we extend the most sincere sympathy.

SUBSCRIBERS are reminded that the annual subscription of 12s. 6d. for the GAZETTE AND DIRECTORY is now due. Subscriptions should be sent to Mr. W. J. Curry, at the GAZETTE Office. In the new Edition of the DIRECTORY for 1924, which will be published at the end of next week, the fullest and most up-to-date information possible regarding the names and addresses of Guy's men has been given.

The Treatment of Injuries of the Long Bones Produced by Accident or Disease.

Four Lectures delivered at Guy's Hospital, November, 1923,

BY PROFESSOR E. W. HEY-GROVES, F.R.C.S.
Professor of Surgery, University of Bristol.

LECTURE I.—FIXATION, MOBILIZATION AND TRACTION,

MR. VICE-CHANCELLOR, LADIES AND GENTLEMEN,—I deeply appreciate the honour which has been done to me and the School from which I come in asking me to give these lectures; and I particularly appreciate the happy circumstance which has placed the venue of these lectures at Guy's Hospital, where, as the Vice-Chancellor has already reminded you, a great deal that is modern in the treatment of injuries of bone has been devised and practised by that great thinker and most intrepid surgeon, Sir Arbuthnot Lane.

The problem of the treatment of injuries of the long bones is, of course, one that goes back as far as any which affects medicine and surgery. On the screen you will see a drawing from a specimen in the College of Surgeons' Museum, taken from a mummy-case, which must date back for several thousands of years before Christ, a specimen where a fracture of the lower end of the radius has been treated by a wrapping in which the main constituent to give rigidity was the central or midrib of a palm leaf. That represents a method of splinting in use several thousand years ago.

Now, in considering the problem of the modern treatment of fractures, I must ask you to bear with me for a few moments while I ask you to consider certain fundamental principles relating to the question of natural repair, as we have to see to it that our method does not hinder that process; because, after all there is no method of treatment that can do more than aid and stimulate natural repair.

A long bone, you will remember, consists of a tube of hard bone, inside which is a vascular and fatty channel, containing many blood vessels and many cells, and outside which is an envelope in which blood vessels and cells live. Between the inside core—the medulla—of the bone, and the outside—the periosteum—there is a minute network of canals, occupied in some part by blood vessels, and to some extent by living cells, the Haversian canal system. The whole of the growth of bone, and the whole problem of the repair of bone injuries, and the whole problem of replacing a piece of bone injured, turns upon the relations of these various constituents of the bone: the cells and the blood vessels on one side, and the inter-cellular material, consisting largely of lime-salts and other supporting substance, on the other side.

If I were to ask you what is dead bone, you perhaps would think I was insulting your intelligence; and yet when you come to ask that question in relation to bone injury, it is not a very easy question to answer. At first sight, the answer would seem to be a simple one. The ordinary criterion which is taken as proving that a piece of bone is dead is, that it has no living cells and blood vessels in its interior. A section is cut, and if there are no cells which stain in the interior of the piece of bone, that bone is regarded as dead. But if you take that criterion, then it follows that in almost every fracture, and in every comminuted fracture, there always exists a large quantity of dead bone. In other words, in the actual process of repair it frequently happens that large areas of the dense bone lose their living cells, and are eventually taken back into the living system by fresh blood vessels and fresh cells growing in and revivifying that piece of bone. In the ordinary repair of a fracture there is a constant interchange going on between the dense bone, with few canals, few blood vessels, and few cells, and the vascular areas outside it, and inside it in the periosteal and endosteal region.

I must ask you to consider the principal ways in which fractures become repaired, in relationship particularly with the amount of reparative material required. Fractures, like wounds of soft parts, may heal in one of three different ways: either by first intention, or by granulation, or after suppuration and the destruction of a great deal of their tissues. For example (Fig. 1) here is the slide of the tibia of

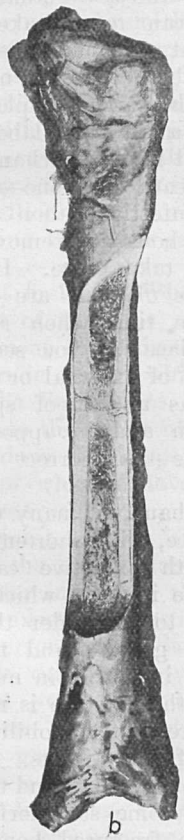


FIG. 1

a cat, treated in a particular way, with the details of which I need not trouble you. It illustrates healing by first intention. There the dense portions of the bone are accurately fitted, each to each, so that actually there is no gap to be filled, and the only necessity for repair is that a plastic material shall be thrown down outside and inside, and that the plastic material shall be incorporated in the substance and tissue of the original bone.

Here (Fig. 2) is a good example of what may be described as a fracture healing by granulation tissue; a mal-united fracture, again an experimental study; the femur this time. The ends of the bone are in bad apposition, and the only way in which union can occur is for a large mass of new cellular material, originally granulation tissue, to be thrown out as a kind of tumour in and around this bone. That mass subsequently becomes ossified. All that process of healing by granulation involves a long time, and a comparatively clumsy method of repair.

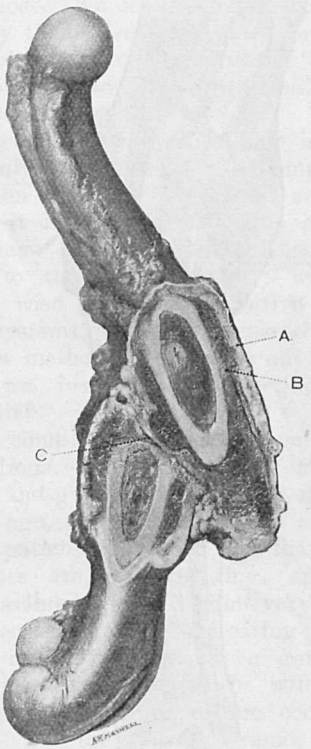


FIG. 2

Thirdly (Fig. 3) there is an example of healing by suppuration, a fracture which had become septic. In such a case it is necessary for those portions of bone which have become infected, to be thrown out. And in the case of bone, that is a matter of difficulty, because, unlike the case of the soft parts, they are digested by the cells only very slowly, and sometimes not at all. Therefore the dead and infected portions of the bone have to be got rid of by slow degrees, partly by a process of molecular disintegration, and partly by comparatively large sequestra being thrown out through cavi-

ties at the side of the fracture. And it is only after all that process has been accomplished that the gap left can be filled up with granulation tissue, and repair finally take place. It is necessary to bear in mind these three methods of healing, in order that we may appreciate the relative advantages of special methods of treating fractures; our aim, of course, being so to bring the ends of the

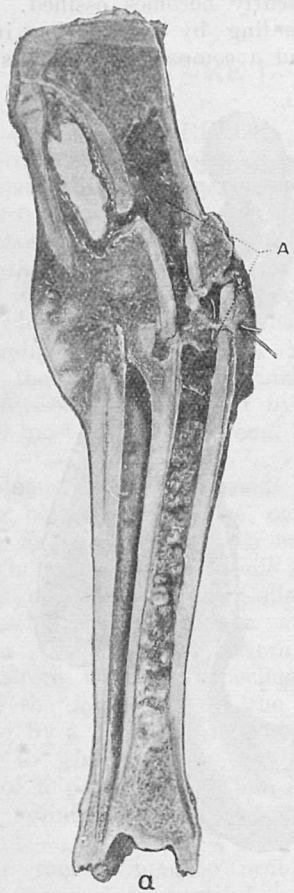


FIG. 3.

injured bone into apposition that no gap shall have to be filled, but merely cement material laid down between the broken ends. In other words, the aim in the treatment of fractures, as in the treatment of wounds of the soft parts, is to bring about healing by first intention. Great deformity necessarily involves healing by granulation, and not healing by first intention, so there is great delay.

I have to ask you now to consider for a moment what will be the process of natural repair, without any treatment at all. I shall speak of this again later. Of course, we have to divide all fractures into two large types for this consideration: those in which there is little or no displacement; those in which there is considerable displacement. If there is considerable displacement in a fracture, and the fracture is left alone, with no treatment at all, various stages of repair will be carried out. But, on the other hand, various deformities will, almost certainly, eventuate. Healing by first intention can never take place without special treatment, except in fissured and partial fractures where there is no displacement. In fractures with marked displacement, healing can only be by a slow and laborious process of granulation; and if, by mischance, there should be extensive death of bone—and by death, here, I mean infection—then if the infected portions of the bone are removed, very serious deformity must take place. If, however, the infected portions of bone are left in position for a reasonable time, then repair has sufficiently taken place, as you see in this specimen, by bridges of external or periosteal bone, which, acting as a sort of splint, keep the bone in position and in apposition, and will eventually make for correct alignment and proper length.

On the other hand, in many cases gross malunion takes place, with shortening, angulation, overlapping, with excessive callus formation. These results are in cases which are untreated, simply allowed to be under the ordinary influence both of gravity and muscular strain. In animals, and in a certain number of human fractures, when the fracture is neglected and is subjected to unrestricted mobility, the result is the formation of false joints. There the process of absorption of bone, and the laying down of new bone, become so interfered with, that the ends of the fractured bone become absolutely inert with regard to the throwing down of callus; the ends of the bone are merely held together by fibrous tissue, and eventually a false joint forms.

Those, then, are, roughly speaking, the processes of natural repair, and the way in which natural repair behaves in a bone which is untreated by anything but the crudest methods, those types of fractures in which complete displacement exists.

That places me in a position to ask you to consider now what the modern methods of

treatment have been able to do, and how they propose to do it. Approximately, one may divide the comparatively modern methods into four special groups. I ought, however, to ask first what claim modernity has to a special treatment of fractures. Well, we have at least three aids now which are comparatively modern. First, of course, there is the invaluable possibility of aseptic surgery ; secondly, there is the possibility of actually seeing what is happening to the bone ends by means of X-rays ; and, thirdly, there is the development of what is now termed physio-therapy, the more complicated types of massage and electrical treatment, and other physiological aids to the recovery of function. With the X-rays to aid in diagnosis, with certain operative methods to aid in treatment, and with physio-therapy to assist recovery, we ought to be in a very much better position than were those of fifty years ago, to bring about the rapid recovery of fractures.

Now, we must first ask, What are our aims in the treatment of fractures, so that we may make that treatment something better than the comparatively crude results which are obtained by just tying the limb on to a splint, in the way that was done thousands of years ago, and has been done down to comparatively modern times, methods of which I have just described the results : gross mal-union, or the production of a false joint. If we are to get better results than by the old-fashioned methods, we can only do better in one of three directions : either by more exactly correcting the deformity — the reason for that I have already explained : if you can perfectly correct a deformity, so that you bring the jagged end exactly against the jagged end, you will leave very much less gap, and there will be very much less repair necessary, and you will bring about the first condition needed for healing by first intention ; secondly we can devote ourselves to restoration of function of the remainder of the limb, particularly the joints and the muscles ; and, thirdly, we can occasionally do a great deal to actually hasten repair, that is to say, hasten the laying down of callus and the consolidation of callus into bone. And it is necessary, in judging of any method of treatment, to ask which of those three factors of improvement it can claim to introduce. Can it really correct the deformity more accurately, can it restore function more rapidly, can it hasten and ensure repair?

Now, in considering and classifying fractures with regard to the choice of treatment, I would ask you to give attention for a moment to a few very simple distinctions.

The first, of course, is the distinction which I have already referred to, namely, the distinction between fractures which have little or no displacement, or no tendency to displacement after that has been reduced ; such injuries as fissured fractures, fractures in the neighbourhood of joints, where simple postural treatment puts the apposition correctly, and there is never any actual loss of contact between the fractured surfaces. Those, of course, come into a category by themselves, and, as a rule, require no very elaborate or complicated system to correct deformity, to restore function, or hasten repair.

In the second great group there is complete displacement, that is to say, a complete want of apposition between the broken ends of the bone, and it is in regard to this group that opinions have differed, and will continue to differ, as to the best methods ; whether we should be wise to be conservative and deal with old systems, or whether we should venture on new methods in carrying out treatment. And are we justified in expecting a more rapid repair?

Given a complete fracture, I would ask two main questions. The first relates to the age, occupation and general condition of the patient. As to the age, one may say, first of all, that in young patients—I mean by that, patients whose bones are still growing, and are so naturally inclined to repair, the very minimum of assistance is required in treating their fractures and injuries. And, as a general rule, a very simple method will be sufficient and the most efficient one to restore continuity to the bone. On the other extreme, you have very aged and senile people, who often heal very badly, and in whom—for an exactly opposite reason—it is wise, again, to be content with a perfectly simple method. As regards occupation, I need not say much, except to draw your attention to the fact that in deciding as to the best method of treating a fracture of any particular limb bone, it is of extreme importance to ascertain what the patient proposes to do with the limb afterwards. Many a man who is a professional footballer, for example, will be ready and willing to undergo open operative treatment of a fracture of his tibia; whereas a man who is a clerk in an office, or

follows some other sedentary occupation, does not care to undergo open operation, or to undertake operative risks. These are comparatively small points.

The second question is: What is the type of fracture? The type of fracture refers to various points which I shall deal with at greater length in my subsequent lectures, especially when referring to methods of operative treatment. At this time I merely remind you that both infection and comminution contra-indicate elaborate open operative methods, and almost certainly require conservative methods. The shape of the bone ends, whether the fracture is oblique, spiral, transverse, particularly whether it affects the shaft or the articular ends of the bones, have to be considered in relation to every bone in the body. I am sorry if I disappoint you by not being able to put on the screen, in black and white, an exact list of every kind of case which should be treated by one method and the kind of case which should be treated by another. But I think the principle of the best treatment of injuries of bone consists in the adaptation of special methods to each case as it arises; I can, therefore, only indicate general principles. I shall leave operative treatment entirely for a subsequent lecture; I am speaking now of some of the simple methods of treatment.

I told you just now we can divide the different methods of treatment into many different groups; but, for my purpose, I want to divide them into four different groups.

First, there is what I would call the expectant method, meaning by that either no treatment at all, or merely putting on a sling or some retentive splint; the kind of method which is often described as the method by massage and mobilization. Then, a little more complicated, is what may be described as postural treatment; not merely putting the limb into the most comfortable position, but into one special position, which, owing to the nature of the fracture and the posture adopted, can be depended upon to correct the fracture. Thirdly, there is the great group of traction methods, which I shall speak of at greater length in a moment. And, lastly, there are the various methods of open operation.

I do not propose, at the moment, to say anything more about the first group of methods, the expectant group, those which are particularly applicable to fractures without displacement; methods which merely aim at protecting the limb from further injury, and allowing the natural processes of repair to go on unhindered.

I pass to the second group of methods, which may be described as the postural methods, and I will merely illustrate my remarks by one or two examples. The postural treatment of fractures is notably seen in connection with fractures in the neighbourhood of joints: the shoulder, elbow, hip, ankle. Here is a skiagram of a fracture at the surgical neck of the humerus. If a fracture of that sort is steadily pulled on, and then brought up into a position of abduction, and kept there, in

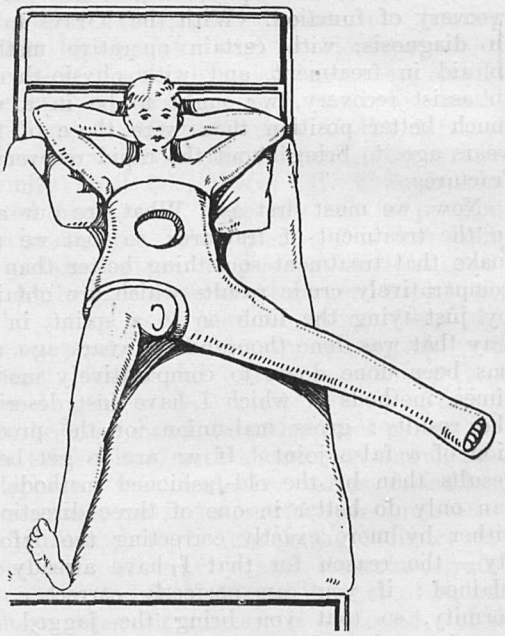


FIG. 4.

many cases replacement will take place, as has happened in this particular instance, and so accurately here that you can only just trace the line of the original fracture, although the skiagram was taken only a day or two after the first one. Similarly, many fractures at the lower end of the humerous, if you get them early enough, can, under suitable anæsthesia, be easily and satisfactorily treated merely by flexing the elbow and supinating the hand. And perhaps the best example of all is fracture at the neck of the femur, which I shall speak of at much greater length in a subsequent lecture. This, in a large number of cases, can be satisfactorily treated by the simple

process of traction on the femur, preferably under an anæsthetic, and bringing about full abduction, and keeping the limb abducted from the body by a suitable case (Fig. 4).

The system which, perhaps, has done more in the last generation for the betterment of the treatment of fractures than any other, is, the method by traction. On the screen before you are various illustrations of the ways in which traction can be applied, particularly in "splint traction" and "fixed traction." It has certain advantages, and certain disadvantages. Its advantages consist, of course, in its simplicity, and in the delightful idea that when once you have carried out the manipulation necessary to produce full length and alignment, you have practically finished the major part of the treatment, and Nature may be trusted to do the rest. Unfortunately, the matter is not so simple as that, because, owing to its

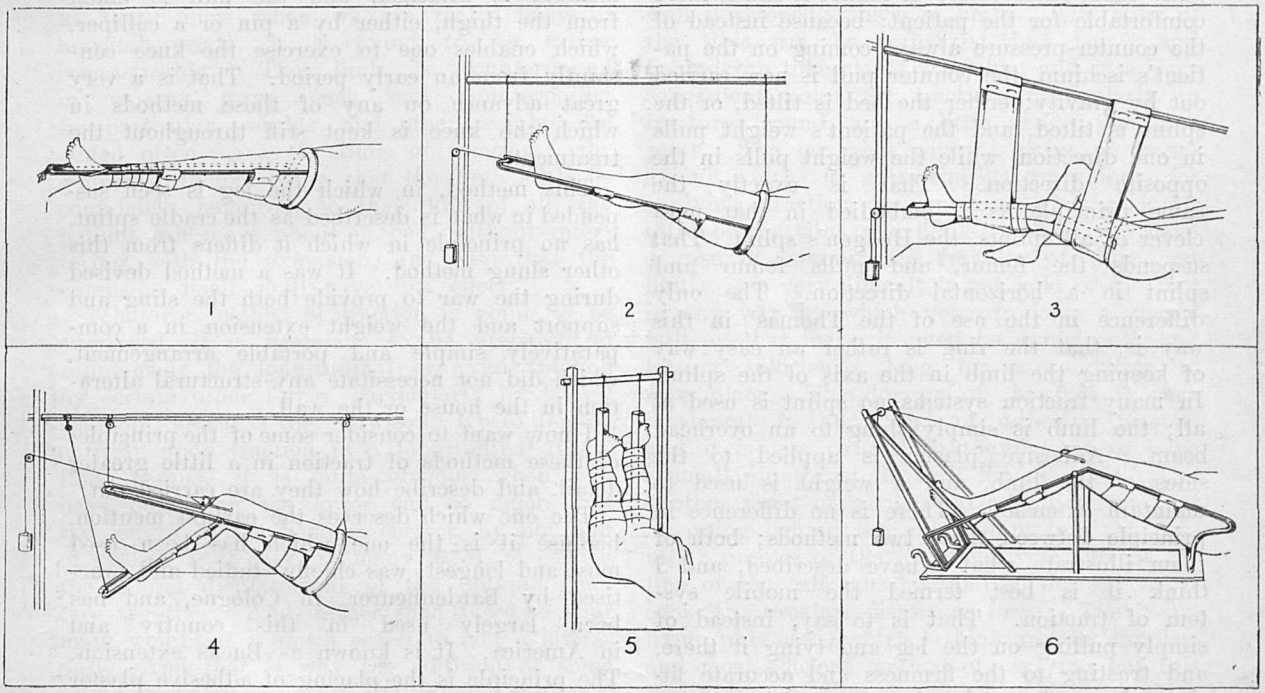


FIG. 5. (From Choyce's System).

the treatment of fracture of the femur (Fig. 5). Just for completeness, and hoping I shall not wound your susceptibilities at all by going over simple things, I explain these diagrams, indicating one or two special points in each type of treatment.

The simplest way in which traction can be applied to a limb is by the use of the Thomas' splint—I am here confining my remarks to the femur—this splint can be placed on the leg, and, provided it fits properly and that the posterior part of the ring takes the bearing of the ischial tuberosity, the leg can be pulled down—preferably under anæsthesia—to its full length, and tied to the end of the splint. The splint is then left in position until union occurs. That has been variously described as peculiar structure, bone takes a very long time for actual repair to take place. The ordinary times put down as those of repair really only indicate the first stages of that repair; it is necessary, therefore, to keep up traction on the femur for at least six weeks to three months if you are to secure a satisfactory final result. And the difficulty of maintaining a pull on the limb by means of adhesive appliances, the difficulty of keeping the splint in exact apposition with the skeletal point to which it is applied, is so great, that actually the system often fails just because of those two difficulties. During the late War the way in which the Thomas' splint was used most frequently and most successfully was by means of a very slight modification. The limb was first placed in a Tho-

mas' splint, as you see in this first diagram, and, for purposes of transport, the mere fixed traction of the adhesive plaster to the end of the splint was sufficient. But when the patient came to a station, or to a hospital, that splint was suspended to an overhead beam, and a weight was tied to the end of the splint. That, of course, has several advantages. First of all, it substitutes for the inert and passive action of the adhesive plaster a regular and constant pull. And, furthermore, it makes it much more comfortable for the patient; because instead of the counter-pressure always coming on the patient's ischium, the counter pull is now carried out by gravity; either the bed is tilted, or the splint is tilted, and the patient's weight pulls in one direction, while the weight pulls in the opposite direction. That is exactly the same principle as is embodied in that most clever of all splints, the Hodgen's splint. That suspends the femur, and pulls femur and splint in a horizontal direction. The only difference in the use of the Thomas' in this way is, that the ring is rather an easy way of keeping the limb in the axis of the splint. In many traction systems no splint is used at all; the limb is simply slung to an overhead beam. Adhesive plaster is applied to the sides of the limb, and a weight is used to maintain extension. There is no difference in principle between these two methods; both of them illustrate what I have described, and I think it is best termed the mobile system of traction. That is to say, instead of simply pulling on the leg and tying it there, and trusting to the firmness and accurate fitting of your material for the position to remain, you tie a weight to the end of the limb, and keep a constant pull on, so that the constant tension of the muscles shall be met by a constant pull. And, in the experience of the majority of surgeons — in which I cordially agree—that is the most comfortable and most efficient method of carrying out traction, more efficient and more comfortable than the fixed method, which, of course, with care in competent hands, can give good results.

These two methods require a word of further explanation. I have asked you to remember that one of the tests of the efficiency of a method of treatment of fractures must be not merely the correction of the deformity, but the restoration of function. For example, in treatment of fractures of the femur there must be the restoring and the maintaining of mobility and flexibility to the great joints, particularly the knee-joint. That is a cardinal feature of treatment which should always be kept in mind. Therefore, methods such as those seen in 4 and 6 have been introduced, of which there are many modifications. In both, the great feature is the keeping of the main joint in semi-flexion, particularly the knee. The leg is put into a Thomas' splint, and the hinged member is attached, and the pull is taken from the thigh, either by a pin or a calliper, which enables one to exercise the knee constantly from an early period. That is a very great advance on any of those methods in which the knee is kept stiff throughout the treatment.

This method, in which the leg is seen suspended in what is described as the cradle splint, has no principle in which it differs from this other slung method. It was a method devised during the war to provide both the sling and support and the weight extension in a comparatively simple and portable arrangement, which did not necessitate any structural alteration in the house or the wall.

I now want to consider some of the principles of these methods of traction in a little greater detail, and describe how they are carried out.

The one which deserves the earliest mention, because it is the one which has been used most and longest, was chiefly studied and practised by Bardenheurer, in Cologne, and has been largely used in this country and in America. It is known as Bucks extension. The principle is the placing of adhesive plaster on to the limb, which is allowed to lie on the bed, and is pulled upon by a weight running over a pulley. It would be folly to decry this method, because it has actually given a large number of very good results. But its drawbacks are numerous. One—perhaps the principal one—is, that if the limb is allowed to lie on the bed, not slung at all, such a great and uncertain amount of weight extension is lost in the mere friction of the bed clothes; that is to say, you do not know how much you are pulling the fracture, and how much you are pulling a ruck in the bed clothes. Another disadvantage is, that in order to complete the rather inefficient traction—inefficient because force is so lost in traction of the bed clothes—it is necessary to add a varying number of side pulls, which again are difficult to make precise,

for the same reason that it is difficult to make the main pull precise. Therefore some more efficient method is needed in most cases.

I show you in one slide this very simple method, and for comparison a complicated method, so as to give you two extremes ; and, as you know, there is every kind of intermediate method. This latter is a method which was exploited during the War; in fact it was only during the leisure hours of the War that anyone had time to work out such an apparatus as that ; now, when we are really busy in hospital wards, it is found to be rather impracticable. The limb is counterpoised in various ways, each end counterpoised by particular weights, and other weights are added often, so as to allow of rotation ; the general principle being that the limb shall be completely balanced, so that, first of all, the patient can move about in bed, without interfering with the extension, and also that the extension itself shall have full effect.

Whatever method of traction is going to be employed, it is necessary to be prepared to supplement the longitudinal or axial traction by certain other forces, particularly by lateral traction ; and it is very unwise to try to depend entirely upon traction in a longitudinal direction, because it is quite obvious when you have pulled on the lower end so much that the length of the bone is correct, by no kind of pulling is it easy, in many cases, to correct the lateral displacement of the oblique fracture together. And, rather than increase your main weight, it is much easier to add a lateral pull. And that is why the addition of some frame or skeletal splint to the traction appliance is so convenient. Not only do you give the limb a cradle which is comfortable to rest in, but you have lateral lines from which you can take lateral pulls; in many cases you can, by this correction of lateral displacement, convert a fracture with wide displacement into one which will heal by first intention.

However, there are certain drawbacks and limitations which the traction method has, and those drawbacks and limitations are chiefly centred round the difficulty of applying an efficient weight pulling on the leg, to the soft structeres of the skin by means of adhesive appliances which will not give way. And it is because of that difficulty that other methods of applying the traction force to the limb have been introduced. And these methods I shall very briefly illustrate here, saying just a few words of criticism.

The methods are all based upon catching hold of the bone distally to the fracture, either by a transfixion appliance of some sort, or by means of ice tong callipers. In the femur, it is better to go high up and far back, to avoid an exceptionally large synovial cavity. That is the point most usually used in transfixion traction, and is particularly adaptable for fractures of the femur in adults with well developed, muscular limbs. The crest of the tibia can be transfixed just below and behind the tubercle of the tibia, and is a very convenient point for traction, particularly in fractures round, and a little above, the knee joint. The os calcis gives a point of transfixion which is exceedingly convenient for applying traction to fractures of the lower third of the tibia and fibula. When you have a case of comminuted fracture of tibia and fibula, it is very difficult to get hold of the foot in any way by which you can keep a steady pull on that foot ; it must be a big pull, and lasting sufficiently long for consolidation to take place. The dorsum of the foot is very intolerant to any kind of adhesive plaster, and it is less painful to the patient to have a small pin thrust through the os calcis. And another point of mechanical advantage is, that by going behind the ankle joint into the posterior precess of the os calcis, you pull in the line of the calf muscles, and so directly overcome the greatest distorting force. The transfixion pins used, which I think are the simplest and most efficient method of carrying out this treatment, are pins one-eighth of an inch thick by four inches long, or three-sixteenths thick and six inches long, according to whether you are transfixing a small or a large bone. It does not require any incision for its introduction.

The transfixion pin, passing through the lower end of the femur, is seized by some appliance bent like a horse shoe, and, with the knee bent in the way described, a big pull can be put on to the lower end of the femur. One word here on the question of the amount of the weight. There is a frequent mistake in connection with this traction method, that is, to use too small a weight, or to use one which is not adequate for the purpose. You must put on a sufficient weight to correct the displacement, as judged by the skia-

gram taken subsequently. In an old fracture of the femur, one a month old, for instance, it is often necessary to begin with 40 lbs. It is better to put on a big weight in the early stages of your treatment, and then reduce it afterwards, which you can readily do. In two or three weeks you can reduce it to 20lbs., or 15 lbs. But if you begin with only 10 lbs., and add 5 lbs. every day, each increase in weight will mean an altered adjustment, and fresh pain to the patient. I show you one illustration here of the type of case which, in my opinion, is most suited for this transfixion extension, namely, the fractures which are both comminuted and infected. *Here* was a War injury ; you see a piece of shell broke the fibula into little bits, and the tibia is also much comminuted. You see, six weeks afterwards, the tibia has been pulled out to the full length, and the comminuted fracture of the fibula has sorted itself out into a comparatively straight line.

Some have considered that the passing of a transfixion pin through bone is a rather hazardous procedure. Personally, I think that hazard has been greatly exaggerated. It has much less danger, and causes less pain, than tying a 20 lb. weight to a man's leg by adhesive plaster. But the substitutes are these types of calipers which bite into the sides of the bone without going into it. They are quite efficient, but much more difficult to adjust, and they require more superintendence in their after-treatment.

Here is an appliance which is often used in place of transfixing the os calcis. It is a stirrup, a flat plate of steel, which is passed over the posterior process, between the tendo-achillis and the ankle joint, and it is bent round and fixed into a stirrup, and pulled upon. This and the calliper, I think, are not improvements upon the transfixion methods ; for one reason that they are both very much more painful : the callipers because their points are liable to slip and travel in the bone, and the soft parts too ; and this present appliance is not fixed to the bone, and the slightest movement causes pain in contact with the soft parts.

Transfixion of the olecranon is not practised as much as it ought to be. It is not wanted very frequently, but in some cases it is invaluable. In complicated fractures of the lower end of the humerus, and certain fractures, you can, with one week's traction by a small pin passed through the olecranon, get a very accurate alignment and full length.

As an example of the type of fracture, *here* is one recently treated, a spiral fracture of the middle of the shaft of the humerus, with comminution. And there was a serious lesion to the brachial artery; he had an enormous hæmatoma, so that you could hardly feel the radial pulse, and there was injury to the musculo-spiral nerve, a very unsuitable case for early open operation. He was treated by transfixion and weight extension, and the bones sorted themselves out in the way you see. That is an example of the anatomical results from these traction methods. He had complete restitution of function in his arm in six weeks, at the end of a month he was able to do without a splint, and in six weeks he had a useful arm.

In conclusion, Sir, one word. I hope that in the preceding part of my lecture I have had you all with me; and now, perhaps, I shall say something which will leave me by myself. But, at the risk of being a mere Voice crying in the wilderness, I shall venture to say it. The real need for innovation in the treatment of fractures is not the discovery of new methods, it is the correct application of well-known methods to existing cases. In other words, it is the organisation of the treatment of fractures in our hospitals. At present there is no such organisation—or very little. May I tell you what was told to me the other day as an example of the extreme smartness of a distinguished surgeon in a great city? He was just approaching his hospital in his Rolls-Royce car when he, unfortunately, knocked down a passing pedestrian and fractured his femur. He was quite near his hospital, but, being a very quick-thinking man, and an extremely shrewd one, he thought to himself, "Who is on duty?" "I am; I shall have a bed blocked for six weeks." He put the poor man into his car, and from St. Matthew's Hospital, in the East of the City, he drove the man to St. Luke's Hospital, in the West End, and deposited that patient, so that he should not have one of his beds blocked by a horrid fracture of the femur! That is the spirit in which fractures are too often treated in hospitals. It is no question as to whether the general surgeon is not fully competent to treat such fractures ; it is rather to save the general surgeon who has his hands filled with other work. And it is the bringing of cases to-

gether, so as to secure team-work and secure the systematic study of fractures, and the training of sisters, orderlies and nurses who shall carry out continuous treatment on long series of cases, and so achieve skill. It is this type of organisation which is needed in order to improve our results. Until fractures cease to be the mere dregs and off-scourings of the surgical profession, we cannot expect much improvement in results.

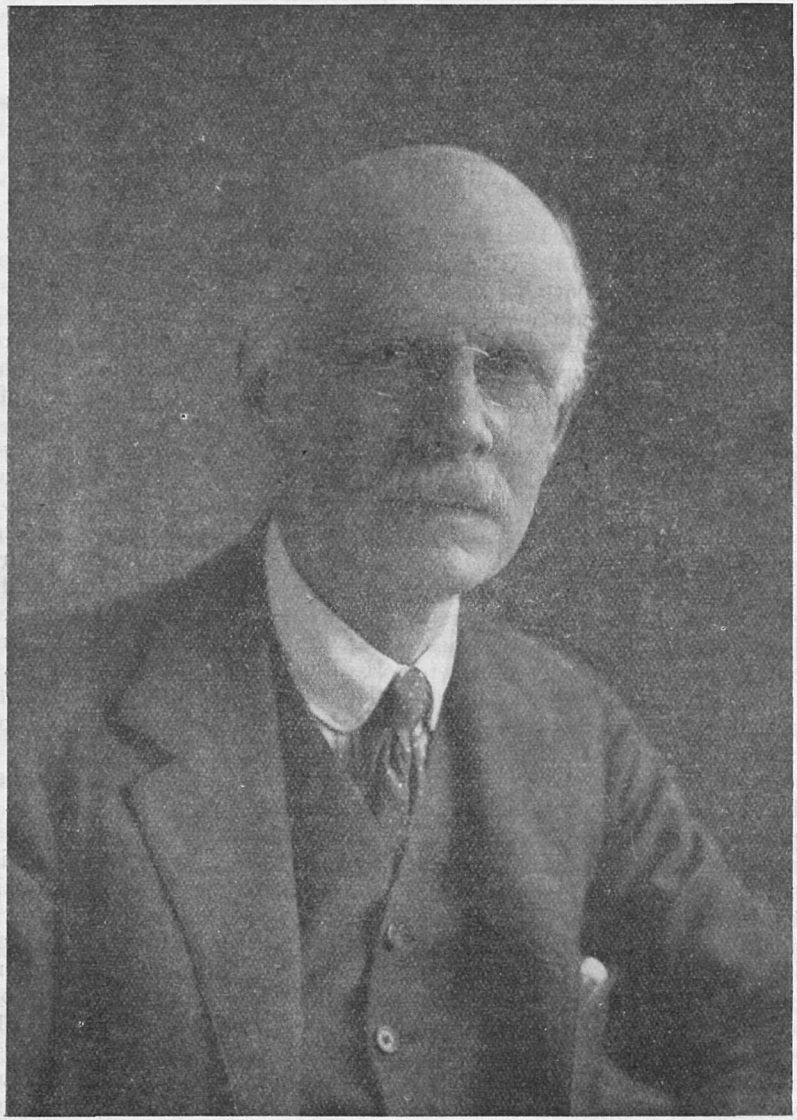
Obituary.

LAURISTON E. SHAW.

WE regret to announce that Dr. Lauriston Elgie Shaw, M.D., F.R.C.P., who was best known for the part he played in medical politics, died at his house in Oatlands Chase, Weybridge, on Christmas Day, aged 64. He was consulting physician to Guy's Hospital, and was formerly treasurer of the London Panel Committee.

Born in London in 1859, the son of Archibald Shaw, who practised at St. Leonard's, he was educated at the City of London School and at University College, afterwards entering Guy's Hospital and graduating M.D. at the University of London in 1883. About this time Guy's Hospital had suffered severely by the untimely death of several of the most promising among the younger aspirants to the staff, and Shaw thus obtained an early footing on the ladder of promotion to the permanent staff. He filled the offices of curator of the museum, medical registrar, teacher of pathology, and assistant physician, and became in due course full physician and lecturer on medicine, posts which he resigned in the spring of 1919. He also served as Dean of the Medical School of Guy's Hospital, and was for a time an assistant physician at the City of London Chest Hospital. In all these positions he showed himself a first-rate clinical teacher, and was much beloved by many generations of Guy's students. He was elected in 1892 a Fellow of the Royal College of Physicians.

From an early period in his career he was interested in medical politics, and, attaching himself to the British Medical Association, he filled the office of President of the Metropolitan Counties Branch in 1911, and was for some years chairman of the Ethical Committee. He held strongly that the preservation of the public health was an important part of the duty of the State. Experience in his father's practice showed him that most persons were unable to pay a doctor adequately unless they had previously made some provision for illness, and that the poorer classes systematically neglected to do so, usually through no fault of their own. Practice as a consultant proved that the labourer was worthy of his hire, and that the greater the certainty of being paid the better was the general type of student attracted to medicine. He looked upon the family practitioner, therefore, as the first line of defence against disease, and he believed that a system of compulsory insurance was the best way of dealing with a difficult question. With these views he took an active part in framing the provisions contained in the National Health Insurance Acts, and was a member of the Provisional Panel Committee and afterwards of the London Panel Committee itself. He retired from this Committee in 1922, when he received a presentation subscribed for by his present and past colleagues. He stated, in acknowledging the gift, what was already well known, that he had carried his scheme through in face of an opposition which had made him "so unpopular in the profession that for a time nearly every avenue of activity was closed" to him. Always a man of delicate health, he paid the penalty of this arduous work by a serious illness in 1914. So far was he from taking warning that in June, 1915, he accepted a nomination from the Minister of Health to serve as a Manager of the Metropolitan Asylums Board. His advice in this capacity was greatly valued, for he devoted himself more especially to the provision of sanatorium accommodation for tuberculous patients, and served as chairman of the Pinewood Sanatorium Sub-Committee. He was also the first chairman of a committee recently appointed to deal more especially with the medical and nursing problems arising in the



[*Photo by Elliott & Fry.*

LAURISTON ELGIE SHAW,

M.D., F.R.C.P. Lond., M.R.C.S. Eng.

service of the Board. These posts he resigned last October on account of failing health.

Transparently honest, tactful, a pleasant and persuasive speaker with the gift of quiet humour, Lauriston Shaw was a powerful advocate for any cause in which his sympathies were enlisted. Unlike that fiery champion, Sir Victor Horsley, with whom he was often associated, he never lost his temper, and had the advantage of being able to view the most controversial subjects from a detached standpoint. Like many reformers, his appearance entirely belied his sentiments. To know him personally was to love him. He was a man of middle height and somewhat delicate appearance; courteous, well-informed, a good conversationalist, and fond of music; he was a staunch friend, and spoke without bitterness of the various rebuffs to which he had been subjected.

The funeral service was held at Golders Green Crematorium on Saturday, December 29, at 11 o'clock.—*The Times.*

Christmas in the Hospital.

A Day with the Niggers.

WHEN one is asked to write an account of the Niggers and Christmas Day in Hospital, one finds oneself at a loss as to how everything can be put down, for it is quite a staggering day.

. . . . . .

I was gently awakened, by one of my three faithful servants, at the usual hour, and after he had silently retired from the room I at once fell to sleep again. On waking a second time, I aroused and made a very careful toilet; I was just putting on my immaculately creased trousers and whistling a snappy air, feeling that all was well, when it dawned upon my mind that a big drum was tolling a dim distant note on this beautiful bright foggy morning. After careful thought it occurred to me that this was Christmas Day and the drum was the warning of greater things, so I hurriedly finished my toilet, not forgetting all the essentials and made my way to the College Quad. I was fruitfully rewarded; and will always thank a sound mind and strong constitution for I was faced by a band of the most grotesque type. The Niggers, and yet not one jet black. Just as I was taking in some of the finer points of their dressy appearance they moved off. I was so intrigued that I followed and was able to grasp the general outlook to more advantage when they sat and had their photos taken. This over the band of bravadoes moved towards the Eye Ward, and the dull care of life was at once thrust aside; for vibrating through the air came a thunderous noise. The rumour went round that this was the great Chaliapine Woodhouse himself; believe me here and now that I never wish to hear him not himself; his was a great song, and his a great voice that I fear few will have the privilege of hearing again: dressed as a sailor he made a fine setting for his delivery. The song was a great success and was backed up by the rest of the troupe, which included Rogues, Tramps, Vagabonds, a mighty Gladiator, a lady in ballet dress, a befrocked gentleman, policeman, sailor, porters, both English and French, Toreador, and a "Garden Subub." From ward to ward on the troupe went, in each a new song, in each a new joke. In the Eye Ward we were told why a certain friend's chassis was built for comfort and not for speed. Later in the day we were informed that there was no difference between the drummer and the big drum.

In Addison we heard Massa Johnson, this year as a porter of one of the principal railways, sing "Yum-Yum," then the Curate relating his adventures as Harold: and was it here that we heard Lolly Forman on his "Subub"? However, Baby Lloyd, who let me say makes an excellent page boy, told us why his name was Brown.

Out-Patients was next visited, and a more joyous and pleasing sight could never be seen, seven hundred children all singing songs, and Mr. Murray Pilcer holding a Drumming Competition. All the children had had their tea and were armed with a present each. Out of the tornado could be heard the approach of the Niggers, and in they came mounting the platform as best they could, and remaining there for as long as they could. Popular choruses were sung and joined in by all the children.

From Out-Patients to Evelyn, and a round of the Surgical Wards was started. In Pat and Sam we saw the last of some old friends; and shortly after I found out the true meaning of the day's great thought, "Facilis descensus Averno," The way to the Subway is paved with good intentions; it was being so when I happened to pass on my way to the College.

Later we heard Taffy Davies again pleading with Desdemonia, a pleasing sight as Julius Cæsar. Massa Johnson sang "When the Clock Strikes," which was very popular. After tea the party moved to Job, here were more good jokes, and Duggie Berry was life like and told us of his favorite flower and a few words on his 'ouse. G. D. gave us some good stuttering in Lydia; from a mercenary point he would go far as a pirate. In Martha Cyrus googled in a surprising way. Cornelius heard the famous Blood crying out for Carolina, and the Policeman in a jovial frame of mind.

Alas, for us spectators, the day was nearly over. Astley Cooper was reached and here everyone seemed

"THE NIGGERS"—CHRISTMAS, 1923.

Back Row: H. G. Selby G. C. Millis M. McG. Moffatt G. T. Henderson G. F. Gibberd D. Vaughan E. E. Neser

Middle Row: L. G. Housden G. Stoker R. E. Lane N. Brooke E. Wornum N. L. Eckhoff C. Ive D. H. Berry S. S. Suzman
J. L. Woodhouse J. A. Currie H. Richards

Front Row: D. B. Whitlock N. L. Lloyd M. Mitman D. S. Davies D. G. Sharp J. D. P. O'Meara L. Forman G. D. Shaw M. Jackson F. Bekker

to collect. Dave, the big drummer was first and created immense mirth, the Pirate again, also Massa Johnson, who refused to sing last for fear, he said, of receiving the rotten eggs. Messrs. Gallagher and Sheen brought the house down, and Pat as Mr. Gallagher was better than ever even after such an arduous day. God Save the King ended a most enjoyable day's amusement for me, and I am sure for those who were warded, and the more fortunate who were able to go from ward to ward; but what a day for the Niggers.

I was later in the evening privileged to go to the Residents' Dinner in College; here one met the Niggers, even after their strenuous time still in top *form. The dinner was a great success and* concluded with speeches and toast making. After the President (Mr. Sharp) had asked us to toast the King, he made a speech thanking all those who had helped him, above all Pat O'Meara, who had spared none of his energies in coaching the Niggers; this was received with prolonged applause. The Warden (Dr. Conybeare) thanked the Residents on behalf of the visitors, and was seconded by Mr. Kendall, who said, and rightly I should judge, that these were the best Niggers he had ever heard. The cry went up "Give me the old days." I think nothing could possibly equal the present day, the hardworking niggers, and the generosity of the Residents. I only hope I spend all my Christmas days in such a happy way; then I shall never have to say "Give me the old days."

Addison.

"A certain vigour marked all the items in the concert in Addison on the 27th, not unworthy of him after whom the Ward is named. From the YES with which the "Three Bloods" announced their lack of bananas, to the last appearance of the two Misses Bowen at the end, the proceedings were full of life and energy. The Misses Bowen, with their delightful combination of voice, fiddle and piano, made the whole ward ring again. Similarly, though on a different line, the graphic description of "Father laying the carpet on the stairs" was rendered with a vividness which we have seldom seen equalled, but perhaps the most remarkable item in this respect was the fervid eloquence of No. 43, in his recital of an anecdote concerning a British Prisoner of War and Napoleon. Alas, that diligent seeker after peace and quiet, the "Gentleman from the Subbubs," must, we think, have felt himself very out of place in so lively an atmosphere, but the extra strain on his already deranged nervous system was, we hope, amply repaid by the way in which the announcement of his return to give us a second item was greeted. Mr. Bradford and the Misses Bowen struck a more classical note, and this also was much appreciated. The whole programme in fact, made us extremely grateful to all who gave items, moreover, the excellent tea, hearty welcome and the cheerful decoration of the ward, made the response to No. 43's call for three cheers for Sister Addison and her Staff an uncommonly hearty one." This concert was preceeded by an excellent tea for the patients.

Out-Patients' Dance.

We are very grateful to the House Committee for allowing this dance to be held on Boxing Day from 4—8 p.m. We hope that its success will gain it an established place among the Christmas festivities of the Hospital in the future. Our heartiest thanks, are due to Sister Out-Patients, her Staff, and the Out-Patient Officers for the very pleasant time we had. We trust that the applause given will be taken as an expression of gratitude by the Denman Band, who, through Mr. Wornum, volunteered to come down to play, and who helped so much to make the evening a success. We were delighted to see the Superintendent and Mrs. Eason, and the Assistant-Matron, among the distinguished company who danced.

Queen and Victoria.

This concert was held in Queen on Thursday, December 27th. There was a long programme practically composed of "Hospital" talent.

Nurse Baker-Jones sang "The Mountain Lovers," while Miss West and Miss Dell gave some recitations. A gentleman (whose name escapes us) sang an old folk song about a crocodile, and Mr. "Blood" Richards and trio sang "Carolina" and "Yes, we have no Bananas."

Mr. Selby did an enormous amount of work. He gave a humourous sketch with Mr. Schollum entitled "George and Wilfred." He also came on by himself at periods during the afternoon and sang "Bill's Asthma," "The Sermon on the Flapper," and "I'm Tickled to Death I'm Single," besides telling some very funny stories.

The "Leyton Four," with their four small, still voices were much appreciated, and Mr. "Lolly" Forman with his two songs, "The Subbubs," and "Oh! I *am* Surprised at You," fairly brought the house down.

An excellent tea was served during the Interval and at the close Mr. Harvey proposed a vote of thanks to Sister Queen and the Nurses for all the hard work they had done to give us such a pleasant time, and three very hearty cheers were given.

Lydia.

Six other concerts in the Hospital being given on the same afternoon prevented all but the very young from attending the Lydia Christmas-Tree Party. I was one of them and by the end of the party did not feel a day more than forty-three.

I got there early just as Mr. Punch discovered that the showman had not arrived and asked Mr. Spurrel to be showman instead. But all the others had come; Judy, Joey—in fact both Joeys were there—the Beadle, who looks like a black beetle, the crocodile and the baby. I heard someone say that "Punch and Judy" was not a very good entertainment for children, which just shows that he wasn't listening properly. Who else but children could enjoy so much repetition? "Did I throw the baby out on purpose?" said Mr. Punch. "Yes," shouted all the trebles. "Did I?" "Yes!!" "Did I?" "YES!!!" and so on until only those who know what it is to be three or six or forty-three could see where the joke was. For the joke is that Mr. Punch knows that he did it on purpose and he knows that you know and the more you shout "Yes," the angrier he gets and the angrier he gets the louder you shout and you can go on like this

until you get quite chokey and are glad to have a mug of tea to make you be able to talk again. The show was over much too soon and was only spoilt by Mr. Punch having to stop so often to tell Sister that the telephone was ringing. That made us all laugh, because usually she hears it without being told, only she was so interested in the show that she forgot what it was.

So then we all went in to tea and had apples and sweets and Christmas cake and doughnuts and got all over jam and sugar and felt all full and comfy so that we couldn't eat any more, and were pleased that Father Christmas was going to come soon. But we wondered how he would come, 'cause the fires were roaring up the chimneys and there were so many of us sitting on the floor round the Tree that he couldn't get past. So he had to come through the window, though he was long and tall for chimneys and ought to have been short and fat for windows. Still he got in at last and Mr. Gayner-Jones saw him first and got awfully excited. I expect he knew that there was a doll on the Tree with his name on it. And so there was for each of us, though we didn't all get dolls. Mr. Steward got a donkey, whose head wobbled, and he sat down and played with it and Mr. Slesinger got a musical box and he sat down and played on it, and they both looked very pleased. There was a toy for Mr. Hughes too, but it was getting late and he had been taken home. And when all the toys were given away, Father Christmas had to go off to another party and we all went back to our beds, after three cheers for Mr. and Mrs. Steward, who gave the party, and Sister and the Nurses, who made it such a jolly one.

Evelyn.

"A garden is a lovesome thing," and so was Evelyn, on Thursday, December 27th, when the combined Concert with Patience and Samaritan took place. What daintier setting could we have wished than those mossy lawns and those rustic arches clad with pink and mauve sweet peas? What mattered if some of the blooms *would* have killed a seed catalogue designer in despair.

Neither was there enchantment for the eye alone. The issue on Christmas Eve of a little volume —"The Hymns of Evelyn"—had led us to hope for a programme as delightful as the scenery, and the large number of artistes, both from without and within the Hospital, didn't disappoint us. Indeed, of the music *and* the tea it may be truly said—it was a pity we had to stop either for the other! But unfortunately there was a sundial in our garden so that we just *couldn't* be ignorant of the time; and when Mr. Jackson called for cheers for the artistes and the Sisters, we gave three jolly good deep-throated ones and in their fragrance looked forward to next year!

Bright.

Well done Bright! We have much upon which to congratulate Mr. O'Meara. The Concert was splendid in every way and thoroughly worthy of the Ward's great name.

It was well attended, in fact all possible space was filled, by the present patients, old Bright patients and many of the present nurses, students and Staff. Here we had every variety. Mr. Richards started the afternoon's gaiety with a few small boys from Cornelius Ward, who told us how nice it is to be in Carolina in the morning. This was later followed by some very amusing topical verses sung by four of the "Adenoid and Tonsil" Dressers. Miss Eason sang some most charming songs, which were greatly admired and encored. Mr. Foreman brought forth roars of laughter and applause by his comic little song about his Subub. His quaint make-up and his pram-load of babies added greatly to the amusement he caused, and indeed, he showed us what the amateur can do when once he is "found out."

Two other excellent examples of local talent must be mentioned and they were Mr. Gallagher and Mr. Shean, sung by Messrs. Pat O'Meara and Taffy Davies, and The Three Parsons, sung by Messrs. Davies, Shaw and Whitlock. Comment is superfluous! Almost all at Guy's had the chance to see and hear these songs, and to know how cleverly they were sung and with what enthusiasm they were received.

Mr. Bradfield then gave us a few songs. I envy those who had not heard him before as well as those who had. He was keenly appreciated and we offer him our heartiest congratulations.

Mr. Selby gave us some of his humorous sketches at the piano, excellently done and greatly enjoyed.

The Cosmopolitan Five rendered some syncopated music. They were as good as ever and were warmly applauded. Mr. O'Meara was lucky in getting their services and the audience luckier still to hear them.

It would take too much space to do justice to all the many songs we heard, and adequately to express our appreciation to the many artistes to whom we are so grateful. But mention must here be made of those professionalists who so kindly came down between the Matinée and Evening performances of their respective theatres. Miss Robson, from Lilac Time, gave us several of her very delightful songs; it was with difficulty one could restrain the audience from calling on her again and again. "Micky" McConnell, from the London Hippodrome, was greeted with much joy and laughter. His song about the poor fool who "doesn't know" was excellently received, and so it should have been. The song as sung by Mr. Stanley Lupino is well known at Guy's and the fact I overheard some one in the audience say he thought it was Mr. Stanley Lupino singing it, was a pretty compliment to Micky and well deserved.

Also from the London Hippodrome we had Mr. Pat Clayton and Mr. Brontay. I am glad they were given such a good welcome and so much appreciation shown. Their songs were most enjoyable.

Sufficient has already been said to make those not present wish they had been, and indeed they really did miss a thoroughly enjoyable afternoon.

Sister Bright gave us all an excellent tea and the organisation and hospitality shown by Sister, with the help of the nurses, made the entire afternoon a complete success. It was nice to see so many old Bright patients present and we hope they will come again every year.

Astley Cooper.

The combined Concert of Astley Cooper and Cornelius Wards, given on Saturday, December 29th.

1923, came as a fitting climax to a week of excellent concerts. The cream of local and professional talent was drawn on with the result that the whole audience agreed that never before had such a concert been given. After tea had been served at 4 p.m., a rather depleted Layton firm started the programme in their inimitable style and were followed by Mr. Robert Basil, who sang excellently, and Mr. Geoffrey Jackson's voice was heard at its best. Miss Winnie Melville and Miss Robson each gave a number of songs—all more than meriting the hearty applause with which they were received. At this point Mr. "Lolly" Forman arrived from the Subbubs and explained, to the evident enjoyment of the audience, why he lived there. Mr. Harding's imitation of a Cockney at a theatre was well received, especially by the small boys in the front rows. Messrs. Gallagher and Shean (described as being "the gentlemen from the Prudential") in the persons of Messrs. O'Meara and Davies, let us know their troubles and worries. Now arrived the two principal comedians from the Hippodrome—Messrs. Billy Merson and Laddie Cliff, who sang a duet and then appeared individually. The whole hearted cheering which occurred at the end of their performance was a slight attempt to express the appreciation by the audience of the fact that these two had already appeared at a matinée and were returning for an evening performance, but found time to come and amuse us too.

Here we turned to more classical music for Mr. Pat Clayton gave an excellent item and Mr. Derek Oldham, who had rushed down from Daly's Theatre after the exhaustion of a matinée followed by a rehearsal and with the prospect of an evening performance in front of him, sang with that clearness of diction, purity of voice, and general perfection which we have come to expect of him. To him also the audience gave a great reception. After Mr. "Micky" McConnell had told us, with great gusto, about various poor ginks, Mr. Derek Oldham returned to sing with Miss Winnie Melville a delightful duet from Madam Pompadour.

Mr. Huxtable gave us a musical monologue, "And yet I don't know," in which he accompanied himself. His indecision as to what he really *should* buy caused much laughter. Mr. Brentay gave us a song in a voice which easily filled the ward. Mr. Selby at the piano continued his many successes of the past week and told stories and sang songs in a most entertaining manner. The Parsons of Puddle with some topical verses which seemed to be much appreciated, brought the concert to a close soon after 7 p.m.

Thanks were given to the Sisters of the Wards and to the artistes.

The gratitude of the organisers and audience is particularly due to the many professional artistes who gave up their resting time between performances to come down and entertain us. They may be assured that it was thoroughly appreciated.

The only adverse criticism heard by the writer was "It wasn't long enough, it should have gone on till midnight!"

Mary.

The concert in Mary Ward was held on Friday, December 28th, and although on a large scale, with not much outside talent introduced, it was extremely successful.

The programme was opened by Mr. H. Richards and his carefully trained chorus of four small patients from the eye ward, who rendered, "Yes, we have no bananas" and "Carolina in the Morning."

Miss Watkins followed with several child impersonations.

Miss Cavendish and Mr. Dukes rendered an amusing duologue with a matrimonial ending.

Pretty Miss Rachel Gunnis, aged 11 years, gave a most attractive display of dancing, which delighted all present, and readily responded to the demands for encores.

The Layton firm, "Somewhat depleted," gave their energetic and well known chorus about a gentleman at the seaside, and on being encored responded with the adventures of a similar gentleman in this hospital.

An interlude, during which tea was served, came next.

In the second half of the programme Mr. C. E. Gallagher sang several highly appreciated songs. Another Mr. Gallagher (Mr. J. T. P. O'Meara) had a highly entertaining conversation, to music, with Mr. Sheen (Mr. Davies), who seemed to come off distinctly second best.

The Bowen sisters, one a violinist, the other a pianist and vocalist, gave two or three beautiful songs at the piano, accompanied by the violin.

The three parsons, presiding over the parish of Puddle, gave an account of various incidents, occurring in their parish, which the "congregation" found very diverting.

Two talented ladies, the Misses Joy and Kathleen White, called upon, unexpectedly, to add to the programme, sang several entertaining light songs. Mr. Forman sang his suburban song, which he had already made famous, and Mr. Selby told several new stories and sang amusingly to his own accompaniment.

Mr. Lloyd proposed a vote of thanks, which was vociferously supported, to the artists and to Sister and the nurses for the trouble they had taken in providing such a pleasant afternoon.

Naaman and Dorcas.

A most enjoyable concert was held in Naaman Ward on Thursday, December 27th. The Ward had been very prettily decorated with artificial wisteria and laburnum, and that this Guy's "colour scheme" was very much appreciated by the visitors was obvious by the remarks passed. That the decorations took a great deal of the Sister's and Nurses' spare time can be vouched for by one who attempted to render very amateur help, but as the result was really gratifying the trouble taken was amply repaid.

The concert was thoroughly enjoyable all through and the audience was as enthusiastic about the local talent as it was about the imported professional talent and cheered everyone impartially.

Mr. Selby, as a pierrot, opened the proceedings with songs at the piano, which were much appreciated. The recitations given by Miss Daphne Dell were real gems and it is doubtful if anyone in the audience will forget how "she shopped at the butcher's." The "Layton Four" and the "Richards

Troupe" kept the ball rolling. We think that Mr. Richards must be congratulated on the obvious enjoyment his protégés took in their performance, which, considering their ages, was most meritorious.

The "Three Parsons of Puddle" brought the house down. Their actual arrival on the stage was in itself a thing of delight and they captured their audience before ever they opened their mouths. Mr. Eckhoff then told us quite definitely that he was getting better every day, which sentiment caused considerable pleasure to his audience.

Mr. Harding took us to the Theatre, and in an inimitable way recounted the experience of an East-Ender in the "Gods." We almost suspect first-hand knowledge!

An interval for tea was then taken and a great onslaught was made on all the good things that Sister had provided. The appearance afterwards was rather like that of the "devastated regions," which illustration seems to show that the tea was duly appreciated.

After tea some of the artistes who had performed before the interval gave us some further items until a party arrived from the Hippodrome.

Mr. Clayton, who arrived first, came right on to the stage and gave us two songs; he has a fine tenor voice and his songs were much appreciated. Mr. Billy Merson and Mr. Laddie Cliff then gave us a duet about a "yacht they'd not got"; the song and dance were alike priceless. Mr. Laddie Cliff then told us about "his girl's face,"—and from his description he did not require disillusioning as to her personal attractions.

Miss Annie Croft, Mr. Sharland, with Mr. Billie Merson in the background, showed us how to propose. As Mr. Merson remarked he knew all about love, because he had been a Guy's student! As an encore Miss Croft and Mr. Sharland gave us a dissertation on "married life," which was highly amusing. Mr. Merson then sang "Desdemona" as only he can do, and followed this up with "Bill Bailey on his Bangalalee." A considerable section of the audience helped him play the latter!

A hearty vote of thanks was then proposed by Mr. Whitlock and warmly accorded by the audience to the Hippodrome artistes who had been so kind as to come down between performances at the theatre.

Great thanks are due to Mr. Whitlock, Sisters Naaman and Dorcas and their nurses for a most enjoyable concert, the success of which was never in doubt.

Esther.

We have to thank many kind friends for a delightful afternoon in Esther, on Thursday, December 27th. The concert was opened at 3 p.m. by the celebrated Cosmopolitan Five, who are always popular. In our humble opinion their music was even better this year than hitherto. This was followed by a charming song from Miss May Smith, accompanied by Miss Lockwood, who next gave us a brilliantly executed solo on the piano.

Miss Pauline Martin then gave us an amusing imitation of a cockney watching a royal procession. Two clever little boys—one dressed in a V.A.D.'s costume—gave us some excellent dancing and singing. This was loudly applauded by all. Mr. Selby, in costume, amused everyone at the piano, and Mr. Schollum gave great pleasure in his song.

This was followed by the Tea Interval, when very little time was lost owing to the many willing helpers.

A marvellously attired troupe of four—the Layton dressers—next told us, in a spirited manner, all about Pip, Squeak and Wilfrid. The children, especially, were greatly delighted by this. Miss Haynes, with her wonderful coloratura soprano, delighted everyone with her song. We also had an excellent recitation from Nurse Wells, and the two H.P.'s gallantly rose to the occasion, Mr. Mitman complaining of having lost his strings, and Mr. Foreman being a gentleman from the "Subbubs."

The Band then gave us more music, bringing a most enjoyable concert to a close.

Lazarus and Martha.

To write an adequate account of the Lazarus and Martha Concert, held on Friday, 28th December, is an impossible task. Every moment was enjoyed, and we were amazed that Martha could hold so many people. Looking back we can feel only gratitude to so many kind friends for the splendid programme they gave us, and to Mr. Jackson for arranging it and keeping the pot continually boiling, and we take again this opportunity of thanking everyone who so freely gave his services. To catalogue their names we make no attempt, we thank them one and all.

Especially shall we remember the efforts of Mr. Bradfield, who was ready at all times to accompany others at the piano. The songs of Miss Hay, Miss Eason, Mr. Chas. Gallagher, of Mr. Selby at the piano, the hunt of the Rev. Paterson for the next department, and the antics of the Hæmoglobin Richards troupe, we shall remember for a long time to come.

So many were there to help that it was found impossible to allow encores, and much as we should have liked to see again the dancing of Miss Fowle's pupils, and to hear more of the singing and violin playing of the Misses Lloyd, we had to be content with what the time would allow.

Messrs. Pat O'Meara and Davies were there large as life as Mr. Gallagher and Mr. Sheen, and were only allowed to go when they left for the Nile, and Mr. Layton's Four Still Small Voices—those Nurse's men from H.O.P.—were made to sing until they were absolutely pipped and squeaked—never forgetting Wilfrid!

Miss Hardy and her brother had to dispense with the piano, but none the less gave us a most enjoyable selection upon their handbells. And most grateful are we to those members of the Hippodrome Company who, in spite of the extra work which Christmas throws upon them found time to come down and amuse us, as only they know how, among them Micky O'Connell, Pat Clayton and Laddie Cliff.

And last, but not least, we must thank Sisters Martha and Lazarus for their hospitality, and for the perfectly scrumptious tea which they gave us, and their busy band of helpers who during the interval served it with professional skill and precision.

The Children's Ward Party.

A small, but appreciative audience witnessed a fine performance by Prof. A. R. Bullevant, the eminent ventriloquist and conjurer on Friday, December 28th. Joey the doll brought tears of laughter from most eyes and he shed streams of water on to the front row of the stalls in a moment of great grief.

Everyone was amazed to find huge and cumbersome objects disappearing in a twinkling and reappearing soon after from most unlikely spots. It was wonderful to see the ease with which silk squares turned themselves into flags and bunting, and many beaming countenances watched a perfectly innocent umbrella change its coat. Even the magic wand, that all important piece of furniture, waved itself into thin air.

After a generous tea, twelve bewildered children received loads of beautiful toys collected from various sources.

A temperature of 102° was nothing in the ward that night.

The Nurses' Dance.

It was a pity that this dance clashed with the Chelsea Arts Ball at the Albert Hall as, for those who went on from one to the other, the second must have seemed by comparison very flat. Had you studied the faces of the Hospital dancers on Tuesday morning, you could have distinguished with the greatest ease those who had attended the Nurses' Hall from those who had visited the Albert Hall. The former had the rosy-cheeked, pudding-faced appearance of youth, health and happiness, the latter the wan, hatchet faces of old age, sleeplessness and a mucous membrane that turns even against the boiled egg.

The general opinion of the students, except those, whose favourite nurses gave them too few dances, was that it was the best nurses' dance within the memory of man and one of the jolliest of the season. The dresses were superb; our hostesses were charming. Did we tread on their toes, they apologised; did we kick their shins, they smiled; did we confess our love, they laughed outright. At one time, deeply affected by the soft music of the viol d'amour, and the crinolines, I began to breathe endearing words to my own partner, in her "sheen of satin and glimmer of pearls, Queen Lily and Rose in one," when somebody cut me short with a very brutal attack on the external malleolus. That was the evening; love and football; jests and trifle; kisses and kicks.

On thinking it over now, I do not know how the time slipped away, what the dresses were like or who were my partners, I only know that I would like it all over again.

Sport.

Guy's v. Old Alleynians.

GUY'S took the field at Honor Oak Park on Saturday, December 29th, without F. Bekker, B. G. Scholefield and G. Fellowes-Smith. If the first named has made his last appearance for us, owing to the necessity of the side getting together for Cup Ties, may one pause a moment and bid a great Guy's man a grateful farewell. Bekker has been perhaps the greatest scrum half we have had, anyhow, within the last 30 years. But beyond his skill there has always been his willingness to turn out and his keenness on Guy's. To him Guy's was first, last, and always.

W. D. Doherty made a welcome re-appearance against the Old Boys of his College, they both saw, felt and heard him. His help will do us no end of good. A very heavy turf didn't prevent a good fast game and much of it was due to the forwards. E. F. Fouraker and G. G. T. Tregarthen were excellent; N. M. Holloway also was in all the tough work. Jolly good passing, especially considering the grease, sent Orsmond away several times, but he couldn't clear. Graham-Davies was giving him good passes, breast high, continually. W. Meissner got the ball away wonderfully well. It was a nasty thing to heel, sticking up and looking at you; when passed J. G. Van Schalkwijk never missed it. His first try was a beauty, tripping through the mud and the Old Alleynians, he deserved all the applause he got and so did Neser's conversion. Then J. W. Schabort sailed over with a try, and Steyn, once again finding he is faster than 99 men out of a 100 who play football, showed his heels and gained a try. J. W. Finnemore had been away several times, only to be smothered by V. Dalles-Conte, but Finnemore is a great tryer and much to be commended.

The second half Spence had more to do, and he did it well; the Old Boy forwards were much more pressing, R. S. Hellier, the Kent Captain, J. H. L. Muriel, the Eastern County Captain, and J. W. Blanch, the Old Alleynian Captain, are hefty fellows, and the whole side good sportmen. J. G. Van Schalkwijk again scored a glorious side stepping try and A. Orsmond another; Neser converting one.

Result.—Guy's 2 goals 3 tries (19 points), Old Alleynians nil.

Guy's Team.—P. D. B. Spence, A. Orsmond, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, W. Meissner, J. G. Van Schalkwijk, E. E. Neser, W. D. Doherty, E. F. Fouraker, N. M. Holloway, G. G. T. Tregarthen, G. G. Cameron, H. de Wet Vorster, J. W. Schabort.

Rugby Football Club.

Draw for the Senior and Junior Cup Ties.

As notified in a previous issue of the "Gazette" the Draw shown in the Fixture Card for this season is incorrect. It should read–

	1st Round.	2nd Round	Semi-Finals.	Final
1	... ...	Bye—King's	Tuesday, Feb. 12th	Wednesday, March 12th
2	... ...	Bye—Mary's		
3	... ...	Bye—London	Thurs. Feb. 28	
4	Charing Cross	Tuesday, Feb. 5th	Tuesday, Feb. 19th	
5	St. George's			
6	Bart's	Thursday, Jan. 31st	Thursday Feb. 14th	
7	Thomas's			
8	... ...	Bye—Middlesex		
9	... ...	Bye—Guy's	Thursday, Feb. 7th	Tues. Feb. 26
10	... ...	Bye—Univ. Col. H.		

Notices, Pass List, etc.

Collection of Overdue Fees and Accounts by the British Medical Protection Society. Some of the Difficulties.

LAST month the Editor of the GAZETTE was kind enough to place a generous amount of space at my disposal to give a brief outline of the work of the Society and I am again placed in a similar and fortunate position.

The collection of overdue fees and accounts of the Medical Profession is by no means an easy task or a very profitable one; if we could adopt the same simple method that *trade* societies use then our work would be very much simplified and our profit good, but unfortunately we are faced with many difficulties right from the start; as I instanced in the previous article, the general public are under the impression that Doctors and Dentists do *not* sue for their fees, this impression is our first and greatest difficulty, then there is the necessity for our applications in the first instance to be couched in a very polite form owing to the fact that the large majority of our Members do not wish to offend their patients if it can be avoided, this adds another barrier and in addition there are the obstacles created by the Members themselves:—

1. The age of the account, *sometimes* more than six years old, *generally* two, three or four years.

2. The dearth of information about the person responsible, the christian name or initials are generally missing and the account is frequently addressed to the wife when it should be sent to the husband; there is only one occasion when a married woman can be made legally responsible for debt and that is when she *distinctly* pledges her *separate estate.*

The trade societies make one application, which takes the form of a demand and if unsuccessful (which they are in the majority of cases) they then apply for permission to use; we on the other hand make a *series* of written applications where necessary, and if then unpaid, the case is handed over to an outdoor collector of considerable experience, who, if unable to obtain a satisfactory settlement reports to the Office if the case is a good speculation to sue or not; by this method we are not only in a position to advise our Member, but also to save him trouble in the event of deciding to sue (in the majority of cases) we can dispense with his attendance at Court.

F. R. WATSON,
Secretary.

Change of Address.

H. C. C. Taylor, Derbyshire Royal Infirmary, Derby.

A. Robertson, 42, Silverdale, Sydenham, S.E.26.

Miss L. C. Shield, Kitchener Memorial Hospital, Shoubra, Cairo, Egypt.

Miss E. Wilkins, Kitchener Memorial Hospital, Shoubra, Cairo, Egypt.

W. Arthur Young, 2, Devonshire Place, W.1. Phone. Paddington 49.

Eric H. L. Sander, L.D.S., R.C.S.Eng., 7, Oakington Manor Drive, Wembley Hill, Middlesex. Phone Wembley 1687.

Nevil P. Cadell, Foxlease, Keymer, Hassocks, Sussex.

Harry D. Wyse, M.R.C.S., L.R.C.P.Lond., 31, Town Walls, Shrewsbury.

R. B. P. Lansdown, M.B., B.Ch., 106, Woodcote Grove Road, Coulsdon, Surrey.

Change of Name.

NOTICE is hereby given that I, Harry Selby, lately called Harry Seelenfreund, have, by Deed Poll, dated November 9th, 1923, and enrolled in the Central Office of the Supreme Court of Judicature on the 21st of November, 1923, abandoned the surname Seelenfreund and adopted the surname Selby.

HARRY SELBY.

Thirty Club.

THE Third Annual Dinner of the Thirty Club will be held at Oddeenino's Imperial Restaurant, at 7.30 p.m. for 8 p.m., on Saturday, February 16th, 1924. Any members who have not already done so, are requested to communicate with the Hon. Secretaries.

Pass List.

University of Oxford.
B.M.B.Ch.
Final Examination.
Forensic Medicine.

W. H. Bradley. B. G. Scholefield.

Medicine, Surgery, Midwifery.

B. G. Scholefield.

Pharmacology and Materia Medica.

C. P. Blacker. A. T. Fripp.
W. H. Bradley. J. G. S. Thomas.

Pathology.

L. J. Barford. W. H. Bradley.
C. P. Blacker.

Royal College of Surgeons.
F.R.C.S.
Final Examina ion.

H. B. Kent. J. M. Bickerton.
S. Kadinsky. W. D. Doherty.

University of London.
M.D.
December, 1923.
Branch I.
Medicine.

J. V. C. Braithwaite, B.S. M. Maizels, B.S.

Birth.

McEVEDY.—On the 13th December, at 58, Lime Grove, Old Trafford, the wife of Peter McEvedy, F.R.C.S., a son.

Marriage.

GILL-PORTER.—On Saturday, December 15th, at St. Augustines, Kilburn, by the Rev. J. H. Hodgson, Bernard Charles Upcott, youngest son of the Late Leonard Upcott-Gill and Mrs. Upcott-Gill to Katherine Erica, only daughter of Mr. and Mrs. A. S. Potter, of 128, Maida Vale, N.W.6.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *January 19th, 1924.* *Number 927*

PASSIM

THE recent and continuous sounds of song and music, proceeding on certain evenings from the vicinity of the Court Room, have afforded to all due evidence of the Musical Society's successful revival. Details of performances to be held have now been announced in provisional form. On three successive days the Society will produce "The Revenge," by C. Villiers Stanford, followed by Gilbert and Sullivan's Opera, "Trial by Jury." These performances will be held on Tuesday, Wednesday, and Thursday, February 26th, 27th, and 28th, at 8 p.m., in the Chapter House, St. Thomas's Street. The process of reviving the Musical Society has been far from easy, but we feel sure it will meet with the success it deserves. Further information concerning the above performances will be given in our next issue, and we trust that all who can will give their patronage to the Society when the time arrives.

▭

Now that the Christmas festivities are over and fast disappearing into the dim distance, many are turning their thoughts and expectations to the approach of the Residents' Theatricals. Last year's play was on all sides voted to be one of the best that has ever been held. Its excellence will certainly be hard to beat, but now that these theatricals have again become an annual custom, we feel sure that the individual and collective talent amongst the Residents so successfully displayed at Christmas will be more than sufficient to cope with any difficulties that may arise. Actual details of the coming performance will be announced later, and for the present we can but warn all in Hospital to keep their evenings in the first week in February free from other engagements.

THE Governors of the Hospital have recently conveyed to Messrs. Ash & Co., Ltd., their hearty thanks for the generous gift of £50 14s. 3d., being the proceeds from the sale of Christmas Cards which the above firm kindly presented to the Hospital. This sum represents an increase of over £15 on the amount received last year, and is ample evidence of the great success which attended the production of the new series of cards.

▭

WE have recently heard rumours of another Hospital revival in the shape of the Rowing Club Dance. After the excellence of the first one or two of these dances, it was hoped by many that they would assume the shape of hardy perennials. Last year, however, a great gap was formed when the Rowing Club was forced to abandon the idea of a dance owing, we understand, to lack of funds. We sincerely hope that the rumour of this revival will soon become a certainty and that we shall have restored to us a function which is sure to be a pleasing feature of Hospital life.

▭

A SHORT time before Christmas we announced the fact that an attempt was being made to resuscitate our worthy contemporary the "Guyoscope." Having heard many expressions of satisfaction at this announcement, we were sorry to hear that the attempt has, up to the present, met with little success. This disappointment is due solely to the lack of sufficient and suitable copy. There must be many at the Hospital who would heartily welcome the return of the "Guyoscope," and we would strongly urge on them the necessity of an adequate amount of material being sent in to Mr. X, the Editor of the "Guyoscope."

The Treatment of Injuries of the Long Bones Produced by Accident or Disease.

Four Lectures delivered at Guy's Hospital, November, 1923,

By Professor E. W. HEY-GROVES, F.R.C.S.
Professor of Surgery, University of Bristol.

LECTURE II.—Advantages and Drawbacks of the Operative Treatment of Fractures. Indications for Operation.

Ladies and Gentlemen,—In my last lecture I have discussed briefly the phenomena of the natural repair of bone injuries and pointed out that the first essential necessary for obtaining "healing by first intention" is to secure accurate apposition of the broken ends so that only the minimum of new tissue is required for repair. But also it has to be borne in mind that preservation of the vascularity and vitality of the bone is of first importance. And the third great factor which makes for rapid recovery is maintenance of the functional activity of the muscles and joints of the limbs. Perfect treatment of a fractures combines these three things: accurate apposition, preservation of vitality and maintenance of muscle and joint function. Such ideal treatment is seldom possible of complete realisation except in those fractures which are only partial or where accurate restitution of form can be made and maintained by simple postural splinting. In fractures with much displacement the treatment which most closely approaches the ideal is that by axial traction carried out in such a manner that the joints can be exercised whilst the bone is consolidating.

Operative treatment was introduced and is still advocated as being ideal. It may be so, but generally it is not, simply because in concentrating attention on one of the three points mentioned above, it often violates the others. That is to say, the fixation of a fracture by open operation, if perfect in design and execution, does accurately join the broken ends in good apposition, but it often does this at the expense of the vitality of the bone, and further it requires that the limb should be so firmly splinted after operation that the joints become stiff and the muscles atrophy. We have then in every case to weigh most carefully the relative importance of these three factors before deciding on an operation. For the sake of clearness I will try to put in tabular form the chief advantages and drawbacks of the open operation for fractures of the long bones.

OPERATIVE TREATMENT.

Advantages and Disadvantages.

Advantages:—

- Reduction of displacement.
- Fixation in correct position.
- Acceleration of repair.
  - By assuring the correct anatomical form.
  - By reducing necessity for callus to a minimum.
  - By accelerating the rate of union.
  - By increasing the firmness of union.
- Improvement of function.
  - Perfect form is the best way of securing perfect function.

Disadvantages:—

- Necessity for operation.
- Risk of sepsis.
- Risks of failure.
  - Reduction incomplete.
  - Fixation insecure.
  - Delay in union due to interference with bone vitality.
  - Damage to bone structure.
- Late sequelæ.
  - Painful osteitis, sinus formation.

Let me now discuss and illustrate some of the points shown in the table. First and foremost is the accurate reduction of displacement. This is the chief object and justifica-

tion for undertaking the operation. The most carefully applied axial traction very seldom gives the same perfect restitution to the form of the bone as can be achieved by operative manipulation. This may not be a matter of great importance if correct alignment and full length have been restored and sufficient apposition secured to ensure quick callus repair. But an operation should do more than attain good apposition, it should fix the bones in this correct position and hold them there long enough for repair to take place. If these two things have been achieved, namely correct position and firm fixation, repair ought to be accelerated. The conditions have been secured for healing by first intention, the amount of callus required for repair will be a minimum, the final consolidation of the bone will be quicker and firmer. If all this has been duly carried out then we can confidently look forward to a perfect restoration of function because perfect function is best secured by achieving perfect form. I do not dwell at any length on these advantages of the open operation because they are so well known and have been so often pointed out. But it is my duty to dwell at greater length on the other side of the picture and to point out how and why the operation often fails in the fulfilment of its fair promises. The first cause of failure is that the fracture is incompletely reduced. that is to say the operator is baffled by the difficulty of the problem, which is often very great and is content with bringing the bone ends into fairly good position short of restitution to the correct position. I am quite sure that this is a serious matter and that if it is found impossible to replace the bones accurately it is usually better to abandon the attempt at operative fixation and to depend upon traction methods and external splinting for the further treatment.

FIG. 6

The next cause of failure which frequently brings the operation into discredit is the inefficiency of the fixation used. I illustrate this by an example which is of only too frequent occurrence.

A fracture of the upper third of the femur is treated by the application of a plate about four inches long, fixed by four screws. Long before the bone has consolidated, the screws at one end of the plate work loose and the wound breaks down, requiring the removal of the foreign materials. Finally, as you see in the illustration, the weakly united bone bends under the influence of the adductor muscles and serious deformity results. These two drawbacks to the operation should perhaps be described as defect in the manner of its performance. The next drawback, however, is more or less essential or inevitable. It is that the very act of operative fixation must to some extent interfere with the vitality of the bones ends. The mere exposure of the bones, the holding of them with clamps the drilling of holes in the cortex or medulla, and most of all perhaps, the stripping of the periosteal blood supply all rob the bone of some portion of its blood vessels and reduce its essential cells to inactivity or death. If the bone is thoroughly healthy this diminution of its blood supply causes no appreciable delay in repair, but on the other hand under less favourable conditions there may be delay in union, which is so serious as to call for some fresh operation, such as bone grafting.

Still more serious are those cases where the operation actually destroys a considerable amount of the broken bone ends. This more serious state of affairs occurs when from lack of judgment the operation has been done in conditions of active sepsis, or where the calamity of active sepsis has accompanied the operation. The illustration which I show (Fig. 7) is from the leg bones of a man with a septic gunshot injury. The tibia has been plated and the fibula wired, and you will see that in both bones an extensive necrosis has taken place which would have produced a big gap if the limb had not been amputated. Lastly, I have to remind you of what is perhaps only a minor drawback, but it is one which is disappointing to the patient and humiliating to the surgeon. After the fracture has healed it may be months or years after, a sinus forms or a condition of painful osteitis arises which necessitates a secondary operation for the removal of the foreign bodies used in the operation.

Perhaps this presentation of the case for and against operation leaves the matter so evenly balanced that you feel at a loss as to what your ultimate judgment should be. I will try to help you in this judgment by means of another table, in which is set forth as definitely as possible the indications for choosing an open operation for the treatment of fractures.

FIG. 7

FACTORS DETERMINING OPERATIVE TREATMENT.

Operations of Necessity: To ensure union—

Patella.

Certain conditions of fractures in long bones, such as interposition of soft parts.

Non-union.

Mal-union.

Operations of expediency: To hasten recovery or to secure better function.

General circumstances of the patient.
- Age, occupation and disposition of patient.

Not amenable to other methods.
- Persistence of displacement.
  - Correct length and alignment essential.
  - Lateral displacement, less important.
  - Spiral fractures.

Type of fracture.
- Absence of infection.
- Shape of bone ends.
- Absence of comminution.
- Absence of complications.

In deciding the indications for choosing an open operation I would distinguish between operations of necessity and those of expediency. The first group includes such fractures as that of the patella or those where permanent non-union or mal-union has been definitely established. In all this class of case unless an operation can be performed successfully grave loss of function must persist.

It is in relation to the other group which I have described as operations of expediency that there is much greater room for difference of opinion. In this group we have no reason to anticipate that non-operative methods will not succeed in restoring a good measure of form and function. If, therefore, an open operation is preferred it must be for some very good reason. Either to hasten recovery or to secure better ultimate function. The final test as to whether a correct choice has been made cannot be applied until the patient is fully restored to functional activity. Unfortunately this test is often neglected and is replaced by the mere exhibition of an X-ray picture. If you want to know whether an operation on a fractured femur, for example, has been justified you ought to ask to see the patient walking and concentrate your attention on the question of how soon, how far, and how well he can walk rather than on the question of what the shadow of his bone looks like.

If you bear in mind that the rapid achievement of perfect function is the main aim and justification for operation, you will realise how important it is to consider first the general circumstances of the patient. In regard to age young patients and particularly children have such good power of natural repair that they seldom require operative interference, whilst old people, and I include under this term those who are feeble rather than those who have lived a certain number of years, old people will never recover function rapidly and completely so that an operation on them is seldom justified. The proper type of case for operative treatment is a vigorous adult, whose body, mind, occupation and disposition will lend themselves to our endeavour to secure rapid and perfect functional recovery. I cannot do better, in illustrating this point, than to refer to an incident which happened to me some years ago. I had operated upon a simple transverse fracture of the tibia in a rather feeble old woman. She made a rapid recovery from the operation and was sent home after a few weeks wearing a light case splint. A year later I was showing some cases at a Medical Society and sent for this woman among others. She was late in arriving at the Meeting and to my chagrin she was carried in on a stretcher. Her bone was perfectly united, but her disposition was such that having once broken her leg she preferred for the rest of her life to claim the indulgence given to a bed-ridden cripple. My operation had been good, but my judgment had been bad.

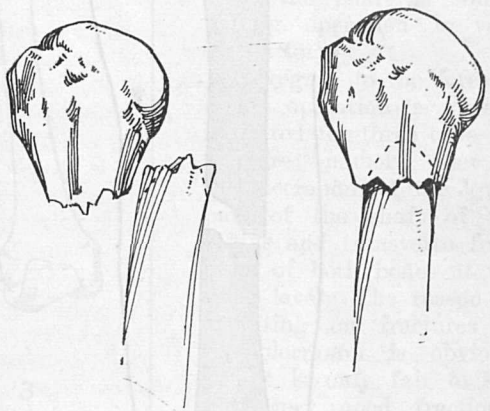


FIG. 8

The chief indication for operative treatment ought to be that the case in point does not yield to non-operative methods. As a general rule if marked displacement exists, axial traction should be applied by one of the methods I have already described. If at the end of a week it is found that serious displacement persists, then operations should be advised. The definition of serious displacement will, of course, be a matter of opinion. Correct length

and alignment are essential. A certain amount of lateral displacement is negligible provided that there is a fair apposition of the fractured surfaces such as will ensure speedy union. Spiral fractures, particularly of the tibia, should be looked upon as a class by themselves. Experience, both clinical and operative, has shown that these fractures are particularly liable to the interposition of soft parts and they are amenable to a simple type of operative treatment.

For fractures of the clavicle I find it difficult to believe that open operation is ever necessary. If the recumbency in bed, which is a usual part of post operative treatment, was employed, without doing the operation a good functional and cosmetic result usually would be assured.

The humerus generally yields to traction methods or to simple postural splinting. Fractures at the upper end of the bone or in the shaft require to be put up in abduction, whilst

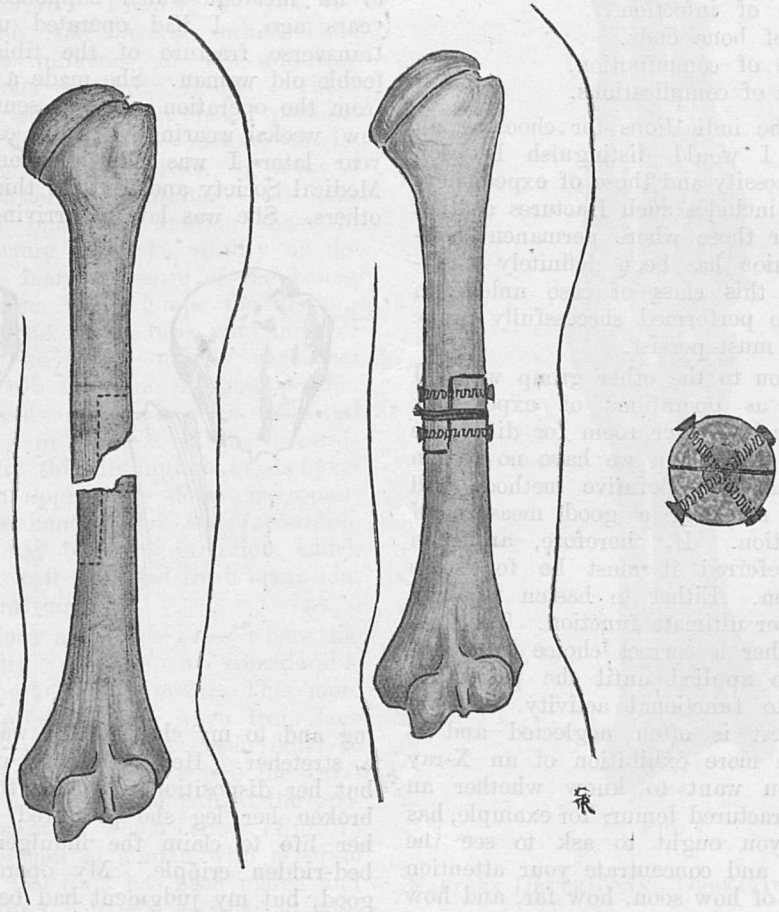


FIG. 9

As regards the type of fracture, this has to be considered in relation to each individual bone, but certain general principles can be laid down. Infection, comminution and co-incident injuries to the main vessels and nerves are all strong contra-indications for operative treatment. I can best consider other details as to the type of fracture by discussing the separate bones involved.

fractures at the lower end require flexion of the elbow.

But in all three situations cases are not uncommon in which accurate reposition fails. Difficulties at the upper end, that is, the surgical neck of the humerus are often brought about by the nature of the case having been overlooked for several days or weeks and manipulative reduction is then very difficult. Ope-

ration should then be done without hesitation and it should take the form of an impaction brought about either by simply fitting the broken ends together or by shaping the distal end as a spike which is thrust into the proximal. Or, lastly, an intramedullary peg may be used. Plating is very unsatisfactory at the upper end of the humerus because the proximal end is difficult to expose and unsuitable in texture for holding screws. The shaft of the humerus will require operative treatment only in conditions which threaten non-union. Under such conditions the best operation is to shape the two ends so that they have a long overlapping surface, the so-called "step cut" operation. The fragments thus shaped are fixed together by through and through screws, bolts, or sutures. At the lower end of the humerus operation is indicated, only in those cases where full flexion of the elbow has failed to reduce the displaced fragments. Where one of the condyles is broken off from the shaft a simple nailing operation is very satisfactory.

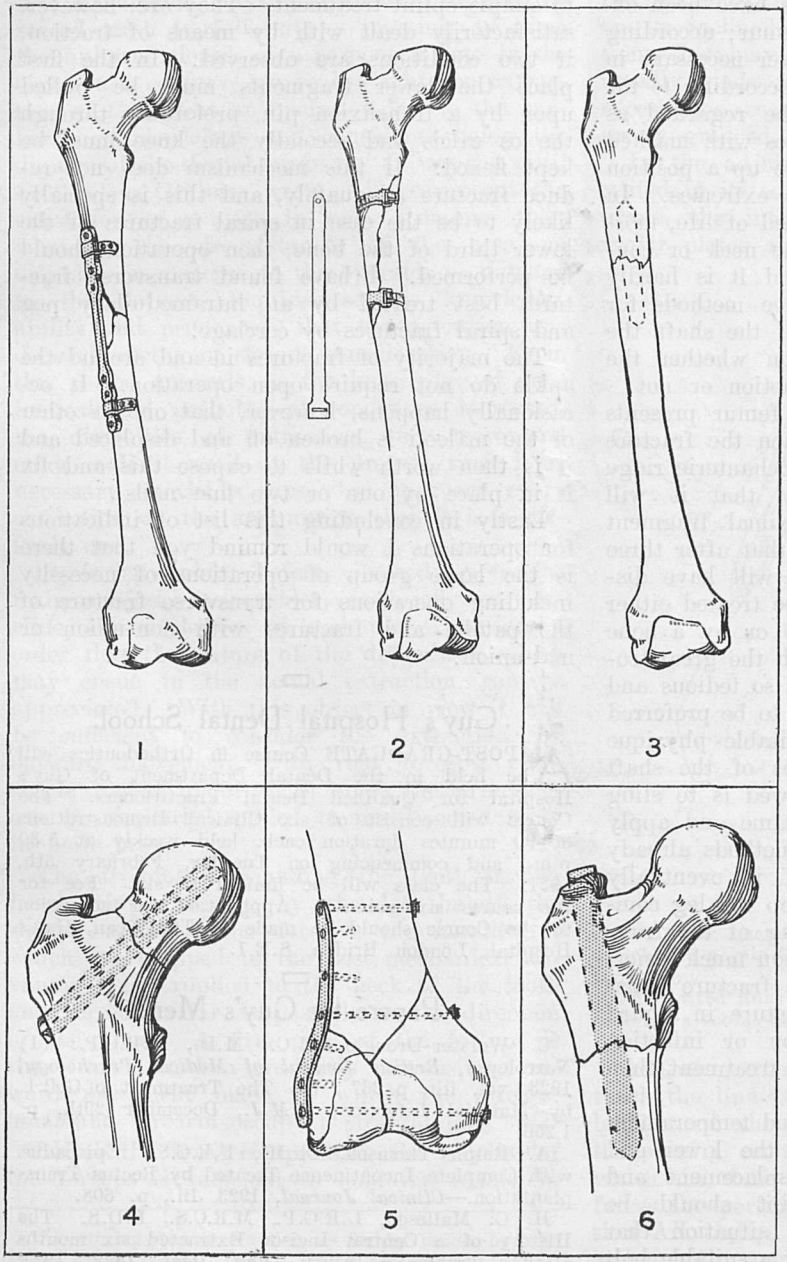


FIG. 10. (Choyce's System).

In regard to the forearm bones operation is chiefly indicated for three types of fracture; namely, that of the olecranon, of the lower part of the shaft of the radius and transverse fractures of both bones at the same level. The reason for operating on fractures of the olecranon is obvious, but it is only fair to say that very good fractional results can be obtained in this fracture without operation if the patient does not require to exert great force with the arm. The reasons for operating on the shaft of the radius or upon a fracture of both bones at the same level is that in both these injuries there is a great tendency for the fragments of the radius to sag inwards towards the ulna and if union takes in this position to make rotation of the arm weak or difficult. The method of operating on such fractures need not detain us, but I

may mention that simple impaction or the use of intramedullary pegs are very simple and satisfactory procedures. Plating is often used with good results.

Turning now to the lower limb, the femur offers many problems for consideration, and it has been and will be a veritable bone of contention. Two extreme views have been expressed about fractures of the femur; according to the one, open operation is never necessary in the treatment of a recent case: according to the other, open operation should be regarded as the routine treatment of all cases with marked displacement. I venture to take up a position intermediate between these two extremes. In a patient during the active period of life, most of the complete fractures of the neck or condyles will require operation and it is hardly worth while to try non-operative methods for these fractures. In fractures of the shaft the decision must rest largely upon whether the case yields readily to axial traction or not.

Fracture of the neck of the femur presents features peculiar to itself. When the fracture line is proximal to the inter-trochanteric ridge there is a strong probability that it will not unite. Moreover the proximal fragment undergoes rapid absorption, so that after three months the neck of the femur will have disappeared. Such a fracture can be treated either by abduction in a plaster case or by a bone peg thrust into the neck through the great trochanter. The plaster method is so tedious and so irksome that the operation is to be preferred whenever the patient is of suitable physique and temperament. In fractures of the shaft the general routine to be followed is to sling the patient's leg up on to a frame and apply traction thereto by one of the methods already described. Even if operation is eventually resorted to, the traction will keep the leg comfortable and prevent overlapping of the fragments, thus rendering the operation much easier. If traction does not reduce the fracture satisfactorily and if the type of fracture in regard to the absence of comminution or infection makes it suitable for operative treatment then this should be chosen.

In patients of an active age and temperament I believe that all fractures of the lower end of the femur with marked displacement and involvement of the knee joint should be operated upon. It is in this situation that transfixion of the whole bone by a suitable bolt is of great service. In this way the condyles can be accurately joined together and by the help of a plate they can be fixed to the shaft of the bone.

Fractures of the tibia have been the subject of operations more often than any other long bone. These fractures when accompanied by marked displacement are not at all amenable to simple splint treatment. They are, however, satisfactorily dealt with by means of traction, if two conditions are observed. In the first place the lower fragments must be pulled upon by a transfixion pin, preferably through the os calcis and secondly the knee must be kept flexed. If this mechanism does not reduce fracture adequately, and this is specially likely to be the case in spiral fractures of the lower third of the bone, then operation should be performed. I have found transverse fractures best treated by an intramedullary peg and spiral fractures by cerclage.

The majority of fractures in and around the ankle do not require open operation. It occasionally happens, however, that one or other of the malleoli is broken off and displaced and it is then worth while to expose this and fix it in place by one or two fine nails.

Lastly in concluding this list of indications for operations I would remind you that there is the large group of operations of necessity including operations for transverse fracture of the patella and fractures with non-union or mal-union.

Guy's Hospital Dental School.

A POST-GRADUATE Course in Orthodontics will be held in the Dental Department of Guy's Hospital for Qualified Dental Practitioners. The Course will consist of six Clinical Demonstrations of 90 minutes duration each, held weekly at 5.30 p.m., and commencing on Tuesday, February 5th, 1924. The class will be limited to six. Fee for the course six guineas. Application for admission to the Course should be made to The Dean, Guy's Hospital, London Bridge, S.E.1.

Papers by Guy's Men.

C. Worster-Drought, M.C., M.D., M.R.C.P.: (1) Narcolepsy, *British Journal of Medical Psychology*, 1923, vol. iii., p. 267 ; (2) The Treatment of G.P.I. by Malarial Infection, *B.M.J.*, December 29th, p. 1,256.

A. Ralph Thomson, Ch.M., F.R.C.S. Epispadias with Complete Incontinence Treated by Rectus Transplantation.—*Clinical Journal*, 1923, lii., p. 608.

H. C. Malleson, L.R.C.P., M.R.C.S., L.D.S. The History of a Central Incisor Extracted six months after a Traumatic Injury.—*Brit. Dent. Jour.*, 1924, xlv., p. 33.

The Newland-Pedley Prize Thesis :

Difficult Extractions—Their Causation and Treatment, Immediate and Subsequent.

Read before the Dental Society by C. A. WAKEFORD, L.D.S., R.C.S. Eng.

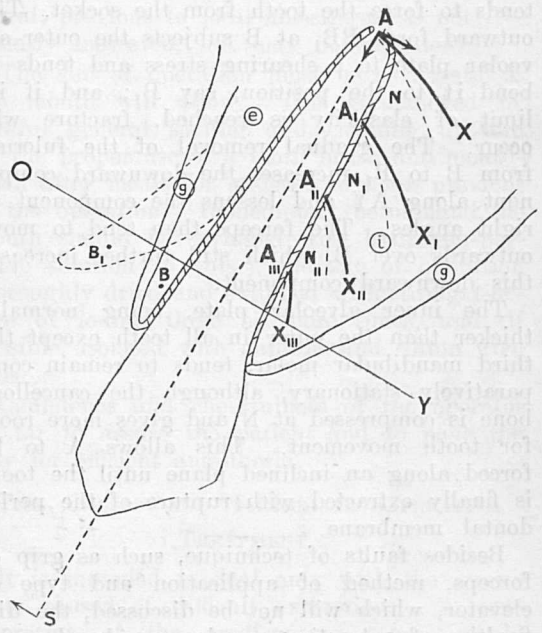
AS we pass forward through the various ages of civilisation, from the time when the chief physician of Nero caused diseased teeth to fall out by pressing on them the unburnt slough of a serpent to late in the eighteenth century, we realise that the extraction of teeth was an operation left to the barbers and charlatans and considered below the dignity of the dental surgeon. It was not until 1768 when Gräbner wrote, "To carry out the extraction of a tooth in such a manner that, whatever the circumstances of the case, no disgrace may accrue to the operator or damage to the patient, requires serious knowledge, ability and prudence," that the operation was deemed worthy of serious consideration. From this period onwards, as the knowledge of anatomical and pathological conditions increased, the difficulties of extraction were more and more realised until at the present time it is necessary, as Gibbs says, "to approach every extraction on the assumption that it is a difficult one."

It is advisable, before proceeding to the main subject, to consider, as briefly as possible, the mechanics of a simple extraction in order that the nature of the difficulties, which may ensue in the actual extraction, can be appreciated. With this object in view it will be sufficient to consider the extraction, by outward movement, with root forceps, of a single rooted upper tooth since the principles can be similarly applied to multi-rooted teeth in both jaws.

The alveolus surrounding the tooth having been gripped firmly by the left hand* the sharp blades of the forceps, the handles of which are gripped to the best mechanical advantage, are applied to the neck of the tooth and forced as far as possible in the direction of the apex. A firm grip of the forceps is then taken and a gradually increasing outward movement made in which the forceps, hand and forearm occupy a straight line.

Before the force compressing the handles of the forceps is sufficient to hold the blades in place, the tooth tends to be projected from its socket, just as a wedge tends to move under the influence of forces acting at a small angle on its inclined faces. While in some extractions this may be the sole extractive force it usually tends merely to loosen the tooth and necessarily ceases immediately the tooth is firmly grasped.

In the adjoined diagram a tooth is represented in its socket with the periodontal membrane, the internal (i) and external (e) alveolar plates and the gingivæ (g).



The thick lines AX.....$A_{III}X_{III}$ show the direction in which the points A.....A_{III} are impelled by the forceps movement.

The dotted lines show a similar direction when the external alveolus has moved to B_1.

Assuming that the blades of the forceps reach the line OY, the outward force S at the handles of the forceps tends to pivot about the point B on the outer alveolar plate against which the shaft of the outer blade rests. This forces the portion of the root BA in the direction AX, A_1X_1.. ..... . $A_{III}X_{III}$; and the reaction being equal and opposite, BA is subject

*Assuming the extraction is being made by the right hand.

to a severe shearing stress. It is obvious that the nearer OY approaches to A the less will be the shearing stress in BA. The root will also be subject to increased stress if the blades slip.

The attachment of the periodontal membrane along BA resists this movement, except exactly along the line A, A_1, A_{11}.....A_{111}; and has a resultant force in the direction of the reactive force of the bone. The attachment of the periodontal membrane at the neck of the tooth, below B, is partially severed in the application of the forceps and offers little resistance to the extractive force although it may offer other complications.

If we consider the forces acting at the points A, A_1, A_{11}.....A_{111}; and resolve them along and at right angles to the long axis of the tooth we see that the component along AS tends to force the tooth from the socket. The outward force BB_1 at B subjects the outer alveolar plate to a shearing stress and tends to bend it to the position, say B_1; and if its limit of elasticity is reached, fracture will occur. The gradual removal of the fulcrum from B to B_1 increases the downward component along AY and lessens the component at right angles. The forceps then tend to move outwards over B, which still further increases this downward component.

The inner alveolar plate, being normally thicker than the outer in all teeth except the third mandibular molar, tends to remain comparatively stationary, although the cancellous bone is compressed at N and gives more room for tooth movement. This allows A to be forced along an inclined plane until the tooth is finally extracted with rupture of the periodontal membrane.

Besides faults of technique, such as grip of forceps, method of application and type of elevator, which will not be discussed, the difficulties of extraction can be considered under the following arbitrary headings which are used merely for the purpose of classification. Many of the conditions may occur together.

1. Tooth Resistance to Crushing Stress.
2. Tooth Resistance to Shearing Stress.

And besides these mechanical difficulties:

3. Abnormalities of Tooth Position.
4. Inability to Open the Jaws.

The general condition of the patient, which frequently gives rise to serious difficulty, will be discussed under pre-operative treatment.

For the sake of convenience in this arrangement it is proposed first to consider the pre-operative treatment; then the causes and immediate treatment together; and, finally, the post-operative treatment and sequelæ. The causes and immediate treatment are considered together so that the difficulties and method of overcoming them shall be consecutive.

Pre-Operative Treatment.

(a) *The Diagnosis of the Condition.*—Very many extractions are only realised to be difficult when some attempt is made at extraction; and some few, having no symptoms, are discovered accidentally when a skiagraph is taken of the region for some other purpose.

When it has been decided to remove a tooth or an odontome and the extraction appears to offer more complications than the normal, it is of the utmost importance to obtain at least two or more radiographs with the tube placed at such angles that there can be no doubt as to the exact position and shape of the object to be extracted. The case (of R. P. Rowlands) of an upper wisdom tooth buried in dense bone at the junction of the posterior wall and roof of the antrum is instructive.

"An incision was made horizontally through the mucous membrane just below the reflexion of the cheek to the upper jaw. The outer and posterior wall of the antrum was gradually chiselled away, but no tooth could be found where the radiogram indicated. The second upper molar was removed to give more room, and a finger was introduced into the antrum. but the tooth was not felt. With the aid of a head lamp a good view of the sinus was obtained, after removing more bone, but no sign of the tooth was discovered and the operation was reluctantly abandoned."

The symptoms continued and pus issued from the antrum. Some months later stereoscopic radiograms, taken horizontally from side to side and before backwards, showed that the tooth was much higher and further back than the previous radiograms indicated. The tooth was found with its crown facing upwards firmly embedded in bone and was successfully removed, the antrum being subsequently drained through the nose.

(b) *The General Condition of the Patient.*—This has to be considered both from the standpoint of the effects of the anæsthetic and of the operation. These are so closely interlinked that it is difficult to consider them apart. Con-

ditions which predispose to surgical shock and which retard or prevent healing of the wound are dealt with here. Generally the following conditions are unfavourable to extraction.

1. *General debilitating diseases.*—All conditions in which the patient's resistance is severely lowered, such as diseases of metabolism, long-continued fevers, certain nervous diseases, and pronounced anæmia, render extraction dangerous.

2. *Cardiac affections.*—These, particulary valvular insufficiency and the degenerations, similarly contra-indicate extraction.

3. *Epilepsy.*—Some authorities consider this precludes extraction, but the operation is usually successful. The fit usually takes place after the anæsthesia, although it may occur during the operation.

4. *True hæmophilia and the hæmorrhagic diathesis.*—In true hæmophilia the extraction is definitely contra-indicated. In pseudo-hæmophilia, however, by suitable treatment, it is quite possible to perform an extraction, such as that of a lower partially buried third molar, without undue danger.

5. *Oral sepsis.*—This may occur in a patient who has a difficult extraction or may itself render the extraction difficult.

Unless the extraction is remarkably urgent it is necessary to clean up the mouth as much as possible locally and to administer autogenous vaccines to raise the resistance as high as possible.

6. *Menstruation and pregnency.*—Extraction during these periods should be avoided, although fatalities rarely result. Very early and very late pregnancy are more particularly to be avoided.

7. *Extremes of age.*

The treatment of these conditions, where treatment is possible, such as administration of horse serum in pseudo-hæmophilia, should be left to the patient's medical adviser, or in any case performed in conjunction with him.

(c) *The Anæsthetic.*—It is impossible adequately to deal with the question of anæsthesia here, although its problems are inseparable from the problems of operation. The decision whether to operate under general or local anæsthesia is frequently a matter of individual preference; but, other things being equal, general anæsthesia is to be preferred for extractions which have any likelihood of being extensive, in cases where trismus is present and, more particularly, in nervous subjects and in the presence of infection. For the longer operations ether is preferred in this country by most authorities. Intratracheal ether is an excellent anæsthetic for dental operations of magnitude.

(d) *The Preparation of the Patient.*—It is absolutely essential that the patient's resistance should be raised as high as possible and that any general condition should have received adequate treatment.

For local anæsthesia a light but fairly good meal is indicated about an hour previous to the operation. The preparation of a patient for general anæsthesia will be in the hands of the anæsthetist. The administration of general sedatives, such as potassium bromide or bromural, previous to local anæsthesia, is not frequently indicated, but may be expedient.

The site of operation must be as aseptic as the mouth will allow. This is achieved by careful general scaling and cleaning up and by the proper use of a tooth brush and mouth-wash after meals for at least 48 hours previous to the operation. Immediately beforehand, the mouth should be syringed with hydrogen-peroxide solution (5 vols.), the site of operation thoroughly dried and swabbed with strong tincture of iodine three or more times, and, if possible, isolated with napkins and cotton wool rolls.

Confidence and cheerfulness of the operator go far to assure the patient and to pave the way for efficient anæsthesia.

The Causes and Immediate Operative Treatment.

It is intended to deal only with the immediate causes of difficult extractions. A consideration of the predisposing causes would lead to the study of the evolutionary shortening of the jaws, of orthondontics, of the pathology of periodontal disease and of other subjects which are obviously beyond the present scope.

What appears to be the simplest and best method of immediate extraction is dealt with briefly; but it is useless to be dogmatic, since what is one operator's meat is another's poison. It is, of course, essential to approach every operation with some definite plan of campaign and to have the treatment for any possible accident or emergency at the finger tips.

1. Tooth Resistance to Crushing Stress.

(a) *Polypus of the Pulp.*—In this condition the dentine surrounding the pulp chamber is frequently so absorbed that the root is shattered when the forceps are compressed.

(b) *Root Canals Excessively Reamed.*—A similar condition occurs when excessive reaming has been performed for some conservative purpose.

If the root canals in both these cases are cleared out and carefully filled with a hard setting oxyphosphate cement the extraction can be carried out in the usual way.

(c) *Extensive Ravages of Caries.*—Teeth which have two or three roots lightly united by the means of a carious crown can usually be extracted by applying the forceps in the normal manner, driving up as far as possible and then attempting the extraction. The coronal portion fractures, but one root is usually extracted when the remainder can be removed separately.

It is rare that a root is so extensively carious that the forceps or elevator can find no adequate hold; but, if so, it may be necessary to remove the alveolus and proceed similarly to a buried root. It is frequently good practice to apply the beaks of the forceps at the apex of the tooth outside the alveolus and the gum and either loosening or forcing out the root by squeezing.

2. Tooth Resistance to Shearing Stress.

(a) *Abnormalities of Tooth Form.* 1. *Curved Roots and Dilaceration.*—Curvature of the roots, particularly a sharp curvature, tends to cause fracture at the plane of least resistance unless the extractive force is principally applied in the direction of the curvature. This is frequently impossible owing to neighbouring teeth or to the tooth having more than one root. Thus in the adjoined sketch the tooth C, if withdrawn at right angles to the plane of the paper by the usual method of extraction, tends to fracture at X. It is impossible to withdraw it in the ideal direction of the arrow A because of the adjoining tooth.

The upper second and third molars frequently have the apices of the buccal roots bent distally. The upper lateral, canine or second premolar may have sharp apical curvatures. The lower second and third molars may also have roots with distal curvatures and the lower premolars more rarely.

2. *Divergent Roots.*—In multi-rooted teeth, when all the roots cannot at the same time be extracted in the ideal individual direction, the shearing stress in one or more roots tends to increase past the breaking point.

In deciduous molars divergent roots are normal. In the maxillary permanent molars all the roots may be abnormally divergent, but the lingual usually diverges most.

3. *Germinated Teeth.*—Where the crown and roots are completely fused, little difficulty is usually experienced; but where the crowns only are united a similar problem appears to that of divergent roots. This condition is more frequent in the deciduous dentition and in the incisor region.

4. *Extra Roots.*—This condition may be hereditary. In both the deciduous and permanent teeth the following extra roots may lead to root fracture. Mandibular canines may have two roots, one lingual and one buccal; first mandibular molars occasionally have an extra root on the posterior lingual aspect; the first maxillary premolar has been reported with roots similar to a first maxillary molar; the first and second maxillary molars may have an extra root between the anterior buccal and the palatine roots.

(b) *Abnormalities of Tooth Structure.* 1. *Periodontal disease.*—In advanced periodontal disease the teeth become brittle owing to the hypercalcification of the root. This is accentuated by the sclerosis of the surrounding bone. Rarefying periodontitis occurring in one or more parts of a root may weaken it sufficiently to break under an extractive shearing stress.

2. *Dead Teeth.*—Teeth in which the pulp is dead, or removed, obtain little nutrition and in time become very brittle. Where the blood and lymphatic supply is entirely cut off and necrosis occurs, no difficulty usually occurs as the root is generally loose.

The treatment of the conditions enumerated above under "Abnormalities of Tooth form and

structure" depends on whether these abnormalities have been diagnosed. If the diagnosis has been made and skiagrams taken it is necessary to decide whether bone must be removed for the success of the operation. If so, the operation is carried out surgically just as that for a buried canine or third molar. If, on the other hand, there is doubt about bone removal or the condition is undiagnosed, it is best to attempt the extraction in the normal way, using the usual care. Conditions which in the skiagrams appear to present difficulty very frequently are extracted uneventfully in the normal way. In cases of divergent roots it may be necessary to separate the roots with special forceps and extract them separately.

(c) *Abnormalities of Bone.*—It is frequently noticed that teeth in certain families are more difficult to extract than in others, and this is usually due to a varying alveolar density. Increased function is liable to effect a similar result. Teeth showing marked attrition are frequently difficult to extract; and isolated teeth, particularly isolated first or second mandibular molars, are frequently surrounded in dense bone due to a compensatory sclerosis following on increased function. Very chronic periodontitis may also give rise to this condition by sclerotic osteitis.

This density of bone causes increased shearing stress in two ways :—

(1) By preventing the forceps being driven along the root.

(2) By its unyielding nature.

The treatment consists of applying the forceps as near the apex as possible and attempting the extraction. The treatment of fractured roots is considered later. Surgical treatment with removal of the alveolus may be advisable.

(d) *Abnormalities of the Periodontal Membrane.*

(1) *True Exostosis* is rare, but when it has been recorded a portion of the bone has been removed with the tooth. No extensive fracture appears to have been reported.

(2) *Productive Periodontitis.*—A chronic periodontitis of low degree may cause a regular or nodular deposition of cementum along the course of a root. This may be combined with inostosis in another part of the root, and the root is frequently "keyed" into the alveolus on this account. The increased bulk of the root and frequently the sclerosis of the bone offer serious resistance to the downward component of the extractive force.

(3) *False Germination* leads to difficulty in extraction particularly if the teeth united are placed at a divergent angle. This predisposes to fracture of the alveolus, but very few cases are recorded of difficulty.

The questions considered in abnormalities of tooth form apply here. After having used what appears to be an excessive amount of force, some authorities advise leaving the tooth and making another attempt two or more days later, when the attendant inflammation may have loosened the tooth. Cases of productive periodontitis very frequently require the socket to be enlarged with a fissure bur or the external alveolus to be removed before successful extraction can be attempted; and cases of false germination, unless the teeth are excessively loose, should be removed surgically for fear of an extensive fracture of alveolus. Surgical treatment is considered in Abnormalities of Tooth Position.

Where the case has been undiagnosed and the extraction has failed, it is necessary to have skiagrams taken to clear up the difficulty and then to treat the patient with antiseptic mouth baths for the alleviation of pain until the next attempt is made.

3. Abnormalities of Tooth Position.

Many of the comparatively simple displacements merely require an ingenious operator to adapt a selected pair of forceps to the tooth so that the best mechanical advantage may be obtained and so that the neighbouring teeth shall not be damaged or dislocated during the extraction. In the grosser misplacements, however, the operation may become extensive.

Difficulties may arise from—

1. Teeth or roots buried or partially buried in bone.

   This may be due to partial or non-eruption, or in the case of buried roots to growth of the bone.
2. Impaction.
3. Proximity of neighbouring teeth.

Where gross misplacements of teeth are diagnosed it is important that an operation should not be undertaken unless the final result will justify the decision. There are many cases on record of symptomless teeth having remained buried in bone throughout a life time. In only a few selected cases can the prophylactic extraction of such teeth be considered.

Lapersonne, Veltier, and Prélat report a case of a group of supernumary teeth, pointing in all directions in the floor of the orbit. These had invaded the posterior part of the spheno maxillary fossa and caused exophthalmos. No treatment was undertaken owing to the great possibility of disturbing the nutrition of the eye.

1. *Incisors.*—The incisors, both upper and lower, are particularly liable to displacement from trauma when they may erupt in any position. They are known to have erupted through the lip or into a nostril and are frequently grossly misplaced in cleft palates or after operations for cleft palate.

Occasionally teeth are driven into the jaw while the patient is under the impression that they have been knocked out. Thus, Gilmour reports a case in which a left upper central incisor, supposed to have been lost after a blow from a swing, was found lying in an antero-posterior direction under the floor of the nose. After an attempt at forceps extraction it was cut in two by a fissure bur and the crown which pointed posteriorly removed with an elevator.

The most common displacement of the lower incisors is buccal and occasionally lingual. Neighbouring teeth are liable to be damaged if the tooth is removed ordinarily. Straight forceps, grasping the neck of the tooth at right angles to its long axis and swung horizontally often effect the extraction. Some authorities advocate a pair of lower forceps with a very small lingual beak if room will allow.

In the simple misplacements the upper incisors usually only present difficulty when they present lingually. Lower forceps applied to the points of best access of the tooth are useful for these extractions.

2. *Canines.*—After the third molars the canines are the most displaced teeth owing to their late eruption. The maxillary canines may erupt into the palate, but more often high up in the buccal sulcus. Not infrequently they are found lying horizontally in the canine fossa, buried in bone and pointing towards mid line or posteriorly towards the molar region. Cases have been reported of a canine erupting into the nose. In fact, canines, both maxillary and mandibular, may take up any position in or between the incisor and premolar regions.

One of the great difficulties in their removal lies in the proximity of the roots of neighbouring teeth, which, unless great care is exercised, are damaged or dislocated during the operation. When the tooth has erupted, Gibbs says, "The lip should be raised, and the blades of the (straight) forceps applied to the mesial and distal surfaces of the tooth, not in the direction of the long axis, but almost at right angles to it. The operator then forces the blades into the alveolus, grasps the tooth firmly, and, while still pressing, makes short, rapid, to-and-fro movements causing the tooth to make corresponding rotations on its long axis, so that it becomes loosened and can be removed."

When the tooth lies horizontally with the crown pointing mesially or distally and buried in bone, it is necessary to make a mesio-distal incision along the line of the root through the gum and periosteum. These are retracted with a periosteal elevator (a curved elevator is an excellent substitute) and sufficient bone is removed with a bone fissure bur in a dental engine to allow the tooth to be shelled out of its socket with an elevator. The point of application of the elevator must be the point where the best mechanical advantage can be obtained and should not interfere with neighbouring teeth.

In other displacements, particularly antero-posterior, it may be necessary to cut the tooth in two by a fine fissure bur and remove each half separately. The removal of such an incisor has been already described. It may, but does not usually, require the removal of a neighbouring tooth which is obstructing the line of extraction.

(To be continued.)

Publications Received.

The Irish Journal of Medical Science, The Medical Journal of South Africa, The Indian Medical Gazette, The Serpent (Manchester), University College Hospital Magazine, The St. Thomas' Hospital Gazette, Manchester University Medical School Gazette, The Hospital and Health Review, The British Medical Journal, Bratislavské Lekárske Listy, University of Durham College of Medicine Gazette, St. Mary's Hospital Gazette, The Nursing Times, The Hospital Gazette, The Indian Medical Record, The Antiseptic, The Prescriber, The Stethoscope, Abstracts of Bacteriology, New York State Journal of Medicine, The Northerner, The Architectural Association, The Organotherapeutic Review.

Change of Address.

David Forsyth, 9, Harley Street, W.1. ('Phone: Langham 1777.)

The Acute Abdomen from the Point of View of the General Practitioner.

AFTER thirty years of general practice I have come to the conclusion that the "Acute Abdomen" is the most serious of the problems one has to face. The call to see a case of this kind often comes when you are tired out mentally and physically and apt to be caught napping. Perhaps in the near future an abdominal specialist may be available in every town under the Ministry of Health, but at present in most places the general practitioner has to do his best with the aid of his brother general practitioners without such assistance, as the very great majority of patients belong to the poorer classes.

Let us suppose that you are practising in a place where expert opinion cannot be obtained without considerable expense. The patient is too ill to send to a hospital as an out-patient, and at the same time you do not want to send up a trivial case as an urgent one. What are the lines on which to make a diagnosis? Here your previous knowledge of the patient and his relations is often of great assistance.

Patients may be divided into two classes, those who unconsciously magnify and those who minimise their symptoms.

My first care on seeing an abdominal case is not to ask leading questions, but to get the patient to tell me his symptoms and what he thinks causes them. In the case of very young patients you must, of course, rely on the statements of the parents.

Having obtained all the information you can, proceed with your examination.

First put your patient into bed in a good light; take the temperature and pulse very carefully, and remember that the excitement of your visit may send the pulse rate up many beats, especially if the patient is nervous. Note whether the patient draws his legs up or lies easily on his back with his legs stretched out. Note patient's expression very carefully. Be sure to warm your hands before touching the patient and note whether gentle pressure on the abdomen gives relief. Note the character of the respiration and examine the lungs very carefully.

Pneumonia, in its early stages is difficult to detect, but a temperature of 103° or 104°, with a pungent dry skin is extremely suspicious, even if the patient complains of pain over the appendix. I may add here it is remarkable what a number of patients think they know something about appendicitis and fancy they have it. Percuss gently over the appendix and note if there is any dulness or tenderness. I often wish I had never heard of McBurney's point, as the absence of localising signs has often led me astray.

I will now state what leads me to diagnose appendicitis, which in may experience is by far the most common cause of "acute abdomen."

You are called to see a patient who has bad abdominal pain for twenty-four hours. There is nothing to be made out by palpation, but you know there is something wrong as the pulse is 100 and the temperature 99·4°. Call again in a few hours and you will often find definite signs and can make a positive diagnosis.

Cases of auto-intoxication in children from unsuitable food are sometimes very puzzling; the temperature may reach 103°, but the history of previous attacks gives one the clue.

Malingering must not be forgotten. I was called one day to the police station to find a man complaining of great pain over the appendix. Unfortunately there was a neat scar where his appendix had been removed, and one of His Majesty's judges prescribed for him shortly afterwards.

To summarise :—

1. Pay extreme attention to the pulse, ascertain if it is "flicky," and not full or bounding.
2. Pain at McBurney's point; often absent.
3. Previous attacks.
4. Expression and position of patient.
5. Note whether there is any abdominal rigidity or tenderness (often fallacious), dulness or enlarged veins.
6. Do not be led away by a history of food poisoning.
7. Bowels; not much good. I have seen ap-

pendicitis associated with extreme constipation and with profuse diarrhœa.

8. Look out for symptoms of tubercle, especially tubercular peritonitis.

9. Exclude acute lung symptoms (though of course it is possible for the two diseases to co-exist at the same time).

10. Do not give opium; at all events until you have made a definite diagnosis.

Having settled that you are dealing with a case of appendicitis, there is no doubt in my mind that the best place for the patient, unless his means allow him to be operated on at home, is in hospital or a nursing home.

I remember the period before most cases were operated on the treatment being Tinct. Opii and starvation. The results were good, but I am sure they are better now.

Pending a definite diagnosis, remember that many patients are not yet educated up to the "no medicine" state. Use warm external applications and give a placebo, but do not give opium, it may lead you into a fool's paradise.

Now and then I take notes of my cases, and wish I had done so from the first. Let me beg all newly-qualified men who may read these notes to do so, as every man has interesting and important cases from time to time. The average general practitioner with a panel practice spends a good deal of his energies in keeping records, often unnecessary and irritating as I know to my cost, and, tired with his day's work, misses many a golden opportunity of making notes of really important cases.

The rôle of the humble general practitioner is, after all, very important. He is the sieve which has to separate the wheat from the chaff and decide whether he is dealing with a trivial or serious case.

What are the cardinal rules to observe.

In the first place you must judge your patient as a whole. Among many of my patients there is a habit of using exaggerated language. A woman will say her husband is in "awful agony" when there is nothing serious the matter on the other hand many patients go to the other extreme and make light of serious symptoms. Frequently the patient is a child too young to tell you what is wrong and you must view the case from the point of view of an axious parent.

As regards the examination of the patient it is a golden rule to have the abdomen completely exposed. I can recall two cases, both old ladies, who complained of "stomach ache," but who were very shy and unwilling for me to make an examination in the inguinal region. The first had an inguinal hernia which I reduced with some difficulty. In the other case I completely overlooked a strangulated femoral hernia, being misled by her statement that she had eaten something which had disagreed with her. An operation was performed, but too late to save her life.

Do not attach too much importance to a preconceived idea of the patient as to the cause of his trouble.

I remember a case of severe vomiting in a child who had partaken of a hearty meal of sprats which the parents thought had caused the trouble. The pain was referred to the epigastric region and everything seemed to point to an attack of acute gastritis. Two days later there were definite signs of appendicitis and an operation was performed, but too late; if I had not been led away by the history of the sprats I should probably have had my mind drawn to the possibility of appendicitis, though there were no localising signs.

A man walked into my surgery one evening complaining of pain after food, he happened to say the pain was low down in the abdomen, fortunately I examined him thoroughly and found well marked appendicitis, which was operated on successfully.

Another time I was sent for to attend a young woman but could not go for some hours. On arrival I was met with the news that she felt all right and the pain was quite gone. The only abnormal sign was a "splashy" pulse of over 100, but there was a history of previous pain over the appendix. Result, perforated appendix, operation, recovery.

Again, a little girl with colicky attacks, very indefinite signs over the appendix; some enlargement of superficial veins in that region, was sent to hospital where she was quite well for three days, then suddenly taken ill and a gangrenous appendix removed.

Bitter experience has taught me that localising symptoms in appendicitis are often absent till the patient is in extremis.

To reiterate. What are the crucial tests in deciding as to whether you have an "acute abdomen" to deal with?

1. The general appearance especially as regards the expression.

2. The pulse, is it full, slow and regular, or rapid and "splashy."

3. Localising signs, such as pain or dulness in various regions. Don't forget the lead line and make a rectal examination.

4. Previous history of the case as told by patients or relatives.

Having diagnosed an "acute abdomen" act at once. Call in a surgeon or send the patient to a hospital or nursing home, unless you are prepared to perform the operation yourself. My experience has been that appendicitis is by far the most common cause of acute abdomen. I can only remember one case of intussusception and three cases of extra-uterine gestation in the last 20 years. Biliary and renal colic are fairly common. I have had one case of ruptured gastric ulcer, which was operated on successfully.

Women present peculiar difficulties. Take, for instance, a young married woman with severe pain in the right iliac fossa, who has missed a period. Appendicitis, right ovarian trouble, extra-uterine fœtation, renal and biliary colic, all have to be considered. I remember a very puzzling case where a young woman complained of severe abdominal pain. She had missed a period or two and symptoms pointed to a possibility of an early extra-uterine fœtation. The case was cleared up when she passed a perfect specimen of membranous dysmenorrhœa.

Appended are particulars of a few interesting cases :—

1. A man, aged 23, in "terrible" pain, thinks it is on account of some shrimps he eat yesterday. Has already taken half an ounce of castor oil. He thinks he has appendicitis, but refers his pain to the epigastric region. Given another dose of castor oil. Called up next night to patient who thinks he is dying. Pulse good; temperature normal. Diagnosis: colic and "funk." Next day bowels moved freely; patient well.

2. A woman, aged 42, six months pregnant, taken ill during the night, sent for me next (Monday) morning. No temperature. Pain in right iliac region, but nothing definite to be made out. Vomiting bile freely. Given Mist. Bismuthi cum Pepsinæ. Next day feels better, but still has pain at intervals. Taken very ill that night with acute pain. Given Tinct. Chlor. cum Morph. Temperature 99·2. Wednesday, feels better. She improved steadily, went to full term and gave birth to a dead child. Three months later I sent her up to Guy's, when her appendix was removed. She has been quite well since.

3. A man, aged 19, said he had not been feeling well for some weeks, but only went to bed on the day he sent for me. Temperature 103°; pulse 96. Base of left lung suspicious Pain in both iliac regions. Same evening worse. Definite tenderness in right iliac region. This patient developed tubercular peritonitis and died from phthisis some months later.

I trust these rough notes may be of some use. There are many excellent books on "Acute Abdomen," and "Sudden emergencies of General Practice," but I find they do not always direct you when you suddenly find yourself "up against it."

POST TRIGINTA ANNOS.

Correspondence, etc.

The Rugby Football Club.

DEAR SIR,—Now that the first half of the "Rugger" season is over it is interesting to compare figures. Our position at the moment does not look very brilliant, although from the scorings, our defence appears stronger than last season. One misses very much those "Stars" who left the Hospital after last season; nevertheless, the present XV. are battling manfully and have put up some good fights, notably against Aberavon, the Welsh club winning by two points only on their own ground, which is exceedingly creditable in view of Aberavon (on figures) being one of the, if not *the* leading club in Wales.

The following are the figures for Guy's up to the end of 1923, with the figures for the same period in 1922, viz. :—

1923—24 : Played 15, won 5, lost 7, drawn 3, points for 134, points against 79, percentage 43·3.

1922—23 : Played 20, won 11, lost 7, drawn 2, points for 210, points against 140, percentage 60·0.

It is pleasing to note the regular appearance of this season's Captain, and I doubt if there has been a harder or keener worker to keep Guy's "Rugger" flag flying than J. G. van Schalkwijk.

Of the London clubs the London Scottish lead the way to date, followed by the other leading London clubs in the following order (the figures in brackets indicate the number of games played) :—

London Scottish (14), 78·6 per cent.
Bart.'s (11), 63·6 per cent.
Harlequins (16), 62·5 per cent.
Blackheath (19), 55·3 per cent.
O.M.T. (14), 53·6 per cent.
Guy's (15), 43·3 per cent.

Richmond (13), 34·6 per cent.

Trusting the above figures will be of interest to you, I am, yours truly,

ROY C. HOLLOWAY.

"Denislow," Roderick Ave.,
Peacehaven, Sussex,
2nd January, 1924.

The History of Guy's.

SIR,—Wilks and Bettany's "History of Guy's Hospital" was published more than 30 years ago. During that time there have been many changes at the Hospital in Staff, in Buildings, in Teaching. When will someone give us a new edition, revised and brought up to date?—Yours, etc.,

RICHARD KAY, M.B.

Hartland, N. Devon.
15th January.

Subscriptions to the "Gazette."

DEAR SIR,—We wish to make the suggestion that if a subscriber pays for the GAZETTE for twenty years he becomes a life member and makes no further payments.

We offer this suggestion for discussion in "Passim." It is not the 12s. 6d. that is of such importance, but we maintain that 20 (or if you prefer 25 or 30) years' loyalty to the GAZETTE shows that a member continues to take an interest.

Without reference we cannot be certain of facts, but we are under the impression that there is a rule which enables a subscriber to become a life member by paying a certain sum *in advance*. Our suggestion is only the reverse.

R. C. MULLINS.
K. B. ALEXANDER.

The Grotto, Grahamstown, Cape Colony,
December 2nd, 1923.

Hospital Information.

Guy's Hospital.

AT the Meeting of the House Committee on Wednesday, January 2nd, the following list of sums found in the Ward Collecting Boxes, etc., and donations from Patients during the year 1923, was reported. The amounts received in the previous year are also given.

	Box Collections. 1923 £ s. d.	Patients' Contributions. 1923 £ s. d.	Totals for 1922 £ s. d.
Massage Dept. ...	169 8 4	5 15 0	210 13 6
Light and Elect. Department ...	73 9 5	—	66 16 4
Out-Patient Dept.	91 5 6	67 8 3	132 11 4
Surgery	33 10 5	—	41 17 0
Dental Department	11 12 9	3 3 0	10 16 9
Almoner's Office ...	5 14 0	—	8 13 4
Porters' Lodge ...	48 8 9	—	62 11 10
Front Gate ...	23 5 0	—	17 12 8
WARDS—			
Addison	1 6 4	248 7 0	336 13 6
Astley Cooper ...	2 6 8	224 12 3	332 4 6
Bright	—	45 13 0	42 17 7
Charity	2 10 0	487 19 0	394 8 0
Children's	4 17 4	36 17 0	32 1 4
Cornelius	0 17 1	266 16 1	250 6 6
Dorcas	1 17 9	491 14 0	507 8 11
Esther	1 18 10	256 16 0	266 19 3
Evelyn	3 4 3	233 1 6	244 19 9
Eye	3 11 0	416 7 8	369 18 1
Isolation	—	—	6 0 0
Job	7 17 7	351 17 0	373 19 5
Lazarus	2 5 11	249 14 6	208 18 10
Luke	4 18 2	345 8 6	358 2 10
Lydia	4 6 4	390 15 0	403 2 9
Martha	4 13 5	314 5 0	326 10 10
Mary	2 5 9	269 1 6	278 13 6
Naaman	2 13 9	411 8 10	311 6 2
Patience & Samaritan	0 19 6	126 19 6	99 2 9
Queen & Victoria...	1 13 7	584 11 6	616 1 10
Stephen	3 18 5	327 16 6	312 15 1
Miscellaneous ...	—	33 8 6	77 11 6
	£513 15 10	6189 16 1	6701 14 9

TOTALS.	1923. £ s. d.	1922. £ s. d.
Box Collections	513 15 10	549 10 2
Patient's Contributions ...	6189 16 1	6152 4 7
	£6703 11 11	6701 14 9

In addition to the above the following sums have been received from Patients in respect of Special Treatments during 1923:—

	£ s. d.
Massage Department ...	205 7 11
Light Department ...	85 15 6

IN accordance with annual custom the House-Committee publishes for the information of the Medical, Surgical, and Nursing Staff the following Tables showing the total number of Patients sent during the past year to Convalescent Homes.

WARDS.	NUMBER OF PATIENTS. 1922	1923
Astley Cooper	12	14
Cornelius	17	20
Lazarus	33	29
Job	34	33
Naaman	63	68
Luke	73	41
Patience and Samaritan	18	15
Evelyn	18	27
Charity	49	56
Dorcas	34	45
Lydia	41	25
Martha	35	40
Eye Wards	38	32
Addison	53	41
Mary	34	13
Stephen	40	33
Esther	38	33
Queen Victoria	3	14
Children's Ward	1	4
Bright Ward	—	1
Out-Patient Department	*11	*7
	645	591

The subjoined list gives the distribution of the Patients amongst the various Homes:—

Ascot Priory (Women and Children)		31
Fairby Grange Convalescent Home		1
Merchant Taylors' Home (Bognor) (Men) ...		21
Metropolitan Convalescent Institution :—		
Bexhill (Women)	40	
Bexhill (Little Common) (Men)	60	
Broadstairs (Children	96	
Walton-on-Thames (Men & Women)	67	
		263
Parkwood, Swanley		174
Rustington Convalescent Home		41
Schiff Home of Recovery		60
		591

*In addition to the above, sums amounting to £90 17s. 8d. have been contributed by the Samaritan Fund towards 61 cases sent away by the Invalid Children's Aid Association and the Charity Organisation Society for long periods of convalescence through the Almoner's Department 61

652

Sport.

Rugby Football.

Guy's v. Old Merchant Taylors.

APPARENTLY very hard, the ground at Honor Oak Park softened as play progressed on Saturday, January 5th, and eventually provided a pitch for a very fast game. The Merchant Taylors were without Cove-Smtih, and we had to take the field minus B. G. Scholefield and E. E. Neser. Scholefield was reserve at Twickenham and Neser was busy with Exams.

The Old Boys came to Honor Oak Park with a great reputation; their forwards are, and practically always have been, an excellent lot—hard players and hefty tacklers. It was well, therefore, that the leadership of W. D. Doherty so inspired our fellows that they put up the finest game we have seen them play yet, and eventually Guy's won by 24 points to 5.

The first try was due to an excellent break through by Graham-Davies and determined running by Fellows-Smith, who gained the points, Van Schalkwijk goaling. The Taylors were kept to their own half, and after Finnemore had had some runs on the left, which were only just pulled up in time, Steyn ran in, showing his heels to would-be tacklers. Next Finnemore swung past Melhuish and got a well-deserved try, 11 points to nil being the score at half-time.

In the second half there were three tries: one from Steyn, behind the posts, at the end of a perfect run. The second of this series was a good score by Cameron. The third was the result of a beautiful effort by Van Schalkwijk; how he got through the lot left all wondering. Two tries were converted this half; our total was, therefore, 3 goals and 3 tries (24 points). The Taylors gained 1 try by Fagnani, and Cheeseman converted it (5 points). Don't think the Taylors gave us a walk over, it reads like it, but they didn't; on this particular day Guy's were on top and it appeared the O.M.T.'s, whose efforts never flagged, were a little below concert pitch. They had P. K. Melhuish, a Trials Cap and Cambridge Blue, W. I. Cheeseman, old International, F. H. Collier, A. T. Sketchley, and H. H. Fagnani, tried for their Blues at Cambridge in their team.

Never has G. G. Cameron played so well; E. F. Fouraker, another good game; De Wet Vorster I would rather have on my side than against me; all the backs were good.

Guy's Team:—P. D. B. Spence, G. Fellows-Smith, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, J. G. Van Schalkwijk, W. Meissner, E. F. Fouraker, N. M. Holloway, W. D. Doherty, G. G. Cameron, G. G. T. Tregarthen, W. De Wet Vorster, J. W. Schabort, E. W. Hutchinson.

Guy's v. Bristol.

TALK about mud, why Honor Oak Park cannot compare with the Bristol ground, at least not on Saturday, January 12th, and it rained with deadly persistence. We took down a good side, but Bristol beat us by 3 tries or 9 points to nil.

Several times we were very near scoring, but always when well placed we seemed just to fail to get over the line, or the exact opportunity failed to mature. One doesn't want to excuse one's self, but the Bristol forwards are just a bit too hefty for us. They proved themselves very tough customers at Honor Oak Park earlier in the season, and neither their skill nor their physical fitness has deteriorated. Plenty of the latter was wanted on the 12th, for the heavy going and the pace of the game on such a surface took every ounce out of us. The Bristol tries came from R. C. Pickles, E. L. Stinchcombe, and L. J. Corbett. Bristol had B. S. Chantrill, England's full back playing for them and right well he did; but P. D. B. Spence, our own defender compared very favourably, his tackling was immense and all his work very high class.

Guy's Team:—P. D. B. Spence, G. Fellows-Smith, H. Graham-Davies, C. L. Steyn, J. Finnemore, J. G. Van Schalkwijk, F. Bekker, W. D. Doherty, E. E. Neser, N. M. Holloway, E. F. Fouraker, B. G. Scholefield, G. G. Cameron, J. W. Schabort, W. De Wet Vorster.

United Hospitals Hare & Hounds.

Officials for Season 1923-24.

President—Dr. H. A. Munro.
Captain—J. G. S. Thomas (Guy's).
Hon. Secretary—M. E. M. Jago (Guy's).
Hon. Treasurer—W. Kelsey-Fry, Esq.
Committee—L. G. Housden (Guy's), R. G. West (Bart.'s), A. Simpson (King's), A. C. MacLeod (Middlesex).

Five Miles Handicap.

ON November 28th at Chislehurst. J. G. Thomas and M. E. M. Jago laid the trail and judged the race, which finished in a snow-storm. The long handicap men started first; G. W. Rake (Guy's), who started off virtual scratch, made a fine effort to run clean through the field, but was just beaten by MacLeod.

Result (Handicap Time):—
1. A. C. MacLeod (Middlesex), 31 mins. 37 secs.
2. G. W. Rake (Guy's), 31 mins. 45 secs.
3. A. Simpson (King's), 32 mins. 25 secs.
4. L. Pitt-Payne (Guy's), 32 mins. 51 secs.
5. W. D. Jones (Guy's), 33 mins. 12 secs.
6. R. H. Yelf (King's), 33 mins. 46 secs.
7. C. S. Wise (Bart.'s), 33 mins. 48 secs.
8. G. M. Housden (Guy's), 35 mins. 28 secs.

15 ran and finished.

Handicaps.—Rake and Simpson, 2 mins.; Wise and Yelf, 2½ mins.; Jones, 3 mins.; MacLeod, 3½ mins.; Housden, 5 mins.; Pitt-Payne, 6½ mins.

Guy's Hospital v. Westminster Bank.

ON November 7th at Chislehurst; lost by 85 points to 51, 8 a side scoring. Our opponents, who had a strong team, finished the first three men. Messrs. Jago (Guy's), Chitty (Guy's) and Darley (Bart.'s) were the next three to finish in the order named.

Guy's Hospital v. S. London Harriers "A."

ON November 14th at Chislehurst; won by 25 points to 30 points, 5 a side scoring.
1. L. A. Pool (S.L.H.), 32 mins. 57 secs.
2. M. E. M. Jago (Guy's), 33 mins. 36 secs.
3. R. Reed (S.L.H.), 34 mins. 20 secs.
4. W. W. Darley (Bart.'s), 34 mins. 27 secs.
5. J. H. Chitty (Guy's), 34 mins. 48 secs.
6. O. H. Bellerby (Bart.'s), 34 mins. 54 secs.
7. G. D. Innes (S.L.H.), 34 mins. 55 secs.
8. A. Simpson (King's), 35 mins. 22 secs.
9. G. W. Rake (Guy's), 35 mins. 37 secs.

16 ran.

Lawn Tennis.

THE Annual Meeting of the Guy's Hospital Lawn Tennis Club was held in No. 1 Class Room, on November 27th, 1923, Dr. J. Fawcett being in the Chair. The following Officers were elected for the coming season:—

Captain.—H. Lewis Philipps.
Hon. Secretary.—D. R. Grant.
Committee—
First Year.—J. H. F. Hilton.
Second Year.—E. N. Sharpley.
Third Year.—J. P. D. Spence, G. H. Musgrove.
Fourth Year.—E. E. Neser, J. W. Schollum.
Dental.—W. Badenhorst, L. P. Tupling.

The Meeting heartily approved a vote of thanks to Dr. Fawcett, and also to E. V. Potts, who took on the duties of Hon. Sec. in the absence of H. Lewis Philipps.

Pass List, Notices, etc.

Pass List.

3rd Examintion for Medical Degrees.

Michaelmas Term, 1923.

Part I.

Surgery, Pharmacology and Gynæcology.

W. H. Craib. R. B. Fawkes.

Part II.

Principles of Physic, Pathology and Pharmacology.

W. H. Craib. G. T. Henderson.
F. E. Graham-Bonnalie. G. C. Millis.

Society of Apothecaries of London.

December, 1923.

Medicine.

A. G. Robinson.

Forensic Medicine.

H. T. Chiswell. R. Schofield.

University of London.

First (M.B., B.S.) Examination for Medical Degrees.

December, 1923.

S. N. Evans. W. G. Stanford.
C. Hall. G. H. O. Thomas.
C. H. Johnson. A. Danin.
F. S. Krusin. W. H. Miller.
W. Ruzzak.

Specialities.

The "Gem" Pure Water Still.

THE GEM SUPPLIES CO., LTD., 67, SOUTHWARK STREET, S.E.1.

A SUPPLY of pure water is a real necessity, and when there is the least suspicion of lime or other impurities, it should be distilled, as then it is absolutely safe.

The "Gem" Pure Water Still, which is used by H.M. Government, and approved by the *Lancet*, is a handy apparatus, simple to use and very efficient.

It is made in sections which lift apart, and are easily cleaned.

It embodies the latest improvements in scientific construction, and with reasonable care will last for years.

Any part can be removed.

We have every confidence in recommending it to our readers.

Full particulars will be sent to Medical Men on application to the Gem Supplies Co., Ltd.

Birth.

THORNTON.—On December 22nd, 1923, at St. Chad's House, Hamberstone Drive, Leicester, to Grant and Winifred Thornton (née Fawkes), the gift of a son.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *February 2nd, 1924.* *Number 928*

PASSIM

NOTICES concerning the Residents' Play have already been posted in the College and elsewhere, and there remains little more for us to say on the subject. The Play will be performed in the Physiological Theatre on the evenings of Wednesday, Thursday, Friday and Saturday, February 6th, 7th, 8th and 9th. Those who have not already applied for tickets are advised to forward an immediate request to Mr. G. M. Stoker, though, owing to the fact that a fourth performance was considered necessary, following on the great demand for tickets, we doubt whether any tickets will be left by the time this GAZETTE is issued. Those students who are unaccompanied by their fairer friends or relations can obtain free admission to the dress rehearsal or to the gallery on any of the other nights. The exact title of the Play is still in doubt, though we understand that it is to be either "Magda, the Wardmaid," or "What will Matron Say?"

We are informed by an ardent enthusiast, who has thoughts of deserting the medical for the theatrical profession, that in the play will be revealed the world's most beautiful romance featuring love in its noblest guise, and putting forward an incentive to a finer life. In the words of the poet, life will hereafter be "a far, far better thing." On the strength of this information we feel that the producers could not do better than choose the latter alternative to the title. But, of course, we may be wrong!

Dr. J. M. BARRIONUEVO, who was a student at Guy's Hospital in the early 1900's, and who now has an extensive surgical practice at San José, Costa Rica, where he is on the surgical staff of the hospital, draws our attention to the fact that another old Guy's man, Dr. Carlos Duran, a colleague of his in Costa Rica, qualified at Guy's Hospital no less than 50 years ago next April, namely, April 30th, 1874. In such high esteem is Dr. Duran held that the Faculty of Medicine of Costa Rica is making arrangements for commemorating the jubilee of his qualification date by presenting him with a gold medal at a public dinner at which fifty or sixty surgeons and physicians will be present. Though 76 years of age, Dr. Duran works daily at his profession, beginning as a rule, at 6 a.m.; he is in robust health and has been a very distinguished surgeon. It is not only in matters medical and surgical, however, that he has been prominent in Costa Rica; he has in addition been President of the Republic, in the year 1889, and on several other occasions has been a Minister. He is also an ex-President of the Faculty of Medicine. It may not be known generally that quite a number of the surgeons and physicians in Costa Rica are old Guy's men, but many readers of the GAZETTE will be glad to know that in addition to Dr. Carlos Duran and Dr. J. M. Barrionuevo the following gentlemen also have successful practices in that country—F. A. Segreda, R. Jimenez, I. Valerio, R. J. Quesada, and J. Victory.

WE hope, in our next issue, to publish an obituary of the late Dr. Lauriston Shaw, by one of his colleagues. In order that it may be added to existing collection of portraits of famous Guy's men in the Wills Library we are also publishing, as a photogravure, the portrait of Dr. Shaw which appeared in a recent issue of the GAZETTE.

The Treatment of Injuries of the Long Bones Produced by Accident or Disease.

Four Lectures delivered at Guy's Hospital, November, 1923,

By Professor E. W. HEY-GROVES, F.R.C.S.
Professor of Surgery, University of Bristol.

LECTURE III.—Technique and Methods of Operative Treatment.

Ladies and Gentlemen,—In the manner of the serial story writer of the daily Press, I will give you a very short résumé of my first two chapters, before proceeding to the third.

I tried to present to you, in my first lecture, some of the general principles underlying the repair of injuries of bones, drawing your attention particularly to the very mysterious relationship that exists in bone structure between the living cells and the blood vessels and the dead inter-cellular material. I tried to classify the various methods of treating bone injuries under three great groups. The first, which I called the simple or expectant method, relied principally on preventing further injury to the part by the use of some splintage, and encouraging the function of the muscles and the joints. The second group relies principally upon traction in the axis of the limb, applied either by adhesive plaster or by means of transfixion or calipers. And the third group—the more complicated of the three—is the method by open operation. In my second lecture I devoted myself, almost entirely, to the difficult and vexed question as to the advantages and disadvantages of the open operation, and the lines on which I would suggest cases should be selected for the operative treatment.

To-day I come to the description of operative methods; and I want to preface my remarks by reminding you that I am dealing with a large subject, and I have to choose what I think will interest and instruct you most. And if I am not dealing largely with, or showing many illustrations of the commmonly accepted and classical methods of plating fractures, it is not from any intentional neglect on my part, but because you are probably so familiar with the methods that I need not dwell on them at length.

I want to begin, as I did in the other lectures, by dealing with general principles, because, after all, the mere mechanical details of the operation are a secondary consideration compared with the underlying principles which determine success or failure.

My first point is the reaction that takes place between living bones and tight sutures. You are all familiar with the fact that if a suture is tightly tied in the soft living parts, whether it be muscle or fascia or skin—skin is the most easy to illustrate, because there you can see what happens from day to day. If a silkworm gut suture is tightly tied in a fold of skin, inevitably and steadily it cuts its way through until the tension is at an end. In this respect bone differs in no way from other living tissues, and provided the surface contact of the suture with the bone is small and the tension is high, the suture will cut through bone, just as surely as through soft parts.

A good illustration of my point is a case in which I treated the flattened arch of a foot. You know how feet often get painful, and the transverse arch is lost owing to the separating of the metatarsals away from one another. I have very often treated these cases by encircling the necks of the metatarsal bones by some ligature; but if you use an inert ungiving ligature, like wire, almost certainly this will happen, that the wire cuts through the metatarsal bone. And it is interesting to see that as it cuts its way inwards, the bone heals up behind it. That is, of course, merely an illustration of the fact that bone is similar in its behavious towards tension stitches, to other soft parts.

And now the application of that pinciple to the plating of fractures. A plate and screw is a form of suture, and if, when you have laid your suture on to your bone there exists

and persists a definite tension tending to pull out or pull away the metal plate and metal screws, out they certainly will come under ordinary circumstances.

A very familiar tope, for instance, is a comparatively short plate put on the outside of the femur. Owing to the inadequate length of the plate, and possibly to the inadequacy of the splinting, there is always, in the case of the femur, a tendency to outward bowing, or an increase of the outward bowing; which means that the screws at the end of the plate, regarded as tension sutures in the bone, act as in the last instance, namely, by cutting their way out. You have not to evoke any special principle of "cussedness" on the part of the bone, or any mysterious latent sepsis; it is merely the simple principle that living tissue always yields before tension sutures. In my first illustration I drew your attention to the fact that this action of tension on the living bone will be in proportion to the narrowness of contact; that is to say, just as if you use a very fine suture it will cut its way through the tissues much more rapidly than a very stout suture; so if you have a very narrow contact between your screw and the bone, it will inevitably loosen the sooner.

That leads me to the consideration of the different types of screws that may be used. The ordinary screw that is used for woodwork, better known as the carpenter's screw, is a screw which has a widely projecting thread; and the principle of that screw, when it is driven into soft material, such as wood, is that the projecting thread buries itself in the soft yielding structure of the wood. But if you take a screw and, making a hole which will barely take it in the dense bone, and drive that screw in as hard as you can with the screwdriver, and then remove it and examine the track that has been left, you will find that in the hard bone it barely scores the transverse or spiral lines. But, on the other hand, if you take a screw such as is used by the engineer for metal work, the principle of that screw is, that it cannot bury itself into the hard metal for which it is used; and if you take a tap and cut a path in the structure into which you will drive it, you will find, first of all, that the screw can be run in or run out comparatively easily, with very little twisting force; and when you cut the section you will see it buries itself and has a very much wider contact with the bone than is the case with these carpenter's screws, which have what may be described as a frictional grip only. Therefore there cannot be the slightest doubt that in using screws as sutures for bone, the carpenter's screw should be entirely reserved for soft bone, such as exists in the cancellous ends; and in screwing into hard dense bone it is better to use the engineer's screw, because it gets such a far wider surface of contact. The method of cutting the thread is variously arranged for, and if you have only carpenter's screws by you, at a moment's notice you can convert the principle of the carpenter's screw into that of the engineer's screw by taking a file and filing a flat on one or two of the threads towards the point, which has the

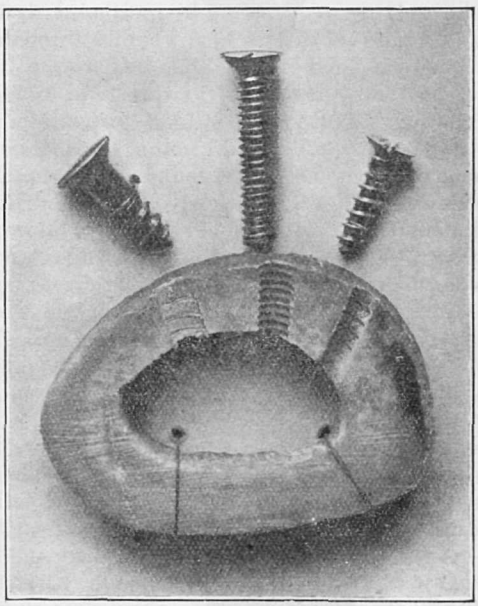


FIG. 11.

effect of making those end threads cut their way into the bone, and you must then drill a smaller hole than otherwise. And there are special screws sold, called by the name Sherman engineer's screws with a slot cut in their point, by which a groove is cut for the thread.

I now come on to the question of the foreign body in living tissue, particularly in relation to its mass or size. Some people use plates for fractures in a half-guilty way; they are not quite sure they are doing right, or they are frightened of it, and they think, "Well, it is only a little one!" Therefore they put in the smallest plate which they think will just bridge over the gap. But that spells almost certain

disaster. Take two experiments. Here, fixed by a plate three-quarters of its length, is the femur of the cat. In the human being this would represent a 10inch or a 12inch plate, that is to say, three-quarters of the length of the bone. It is attached to the bone by split pins, driven through and turned out. So, in proportion to the bone, that is a very big plate; I do not know what the weight of it is, but it represents a big bulk. Yet that is an experiment which could, with ordinary antiseptic precautions, such as are possible in the

FIG. 12.

laboratory, be done again and again without any misadventure, and within a very few days the cat is running about on its leg, and the healing takes place with extraordinary regularity. It is extraordinary what a lot of mystery is made about foreign bodies in relation to the healing of tissues. It may be true that if you can avoid using unabsorbed or unabsorbable metallic sutures and plates you have an advantage; I shall come to that presently. But if you are going to use them, they ought to be of a sufficient size to be efficient in acting as an internal splint.

I will show you the contrast before I discuss the reason why a big plate is much safer than a little one. *Here* (slide) is the contrast; the same kind of animal, the operation performed under the same circumstances, and by the same operator, only a small plate used. I want to be fair, and I admit there is a fallacy in comparing this with an operation on the human sub-

FIG. 13.

Rabbit's femur, 21 days after plating. Screws have come out from the lower fragment. Malunion with lateral displacement.

ject, because it is possible to supplement the use of a short plate in the human being with external splints much more adequately than in the animal. Nevertheless, in both these cases a plate, and nothing but a plate, was used. I put it to you, with your wide experience, that this is quite as large a plate, in proportion to

the length of the bone, as you commonly see used. If you just fix it, by two screws above and two below, inevitably, without exception, in a week that happens which I have just explained to you; namely, there is so much tension and pull on the few screws applied on that one side of the bone, that the screws come out from one end or the other; the fracture works loose, you get gross mal-union in the way shown here, and, in the majority of cases, you get a septic sinus.

That leads to the third point I wish to make in regard to general principles, namely, the relation of open operations on bones to sepsis. I venture to think that this relation has been not quite adequately represented. It has been spoken of in tones of hushed awe, as though bone was something mysterious that required a special ritual of its own. That may or may not be true, but I am sure that the main factor which determines whether sepsis shall occur in these operations on bone, consists in the adequacy of the internal fixation; I say the main factor, taking it for granted that all these operations are done with neither more nor less of aseptic precautions than is necessary for any ordinary major operation. In a case in which you put an inadequate fixation, tension is very great at the point of contact between the living tissues and the few restraining points, the bones work loose, there is a great outpouring of serum and blood at the point of friction between the foreign body and the living material, the contained exudate bursts its way through the recently closed wound, secondary infection takes place; and there you have failure not owing to primary infection, but owing to secondary or late infection.

I spoke to you last time about the advantages and disadvantages of the open operation, and I pointed out that the two claims on which the open operation depends, and rightly depends, are, first, that it secures, as much as anything can secure, healing by first intention; that is to say, it promotes, or brings about an accurate end-to-end fitting of the bone, so that the minimum amount of reparative material is required. And the second claim is, that having done that, it reduces the period of repair, and makes final function more perfect. I say those claims are rightly urged. But I warned you last time—and I repeat it here—that the actual shortening of the period of repair is not so real as we all hoped and wished. An experiment shows it very well. These are two bones—tibia and fibula—of cats, in a series of five experiments, done under precisely the same circumstances, at about the same period. In each experiment the bone was united by a long plate: you can only see the split pins which unite the plate; they are more satisfactory than screws in the case of these small bones. In each case it forms, mechanically, a very sound, firm union. Every one of the five experiments appeared to be perfectly successful, and none of them were prolonged beyond six weeks, the animal was destroyed after an interval not longer than that. You will notice in this, which is typical of the first four cases, union is perfect. It can claim to be union by first intention, that is to say, the minimum amount of new material for repair. In the fifth case the ends of the bone are seen clear; there is a gap of bare bone on each side of the fracture line, so you could say there is no evidence of union at the line of fracture. And I am satisfied that this phenomenon is not very infrequent in operations on human bones. I think you will readily see the explanation is that, for the time being, in regard to true vitality, the ends of the bone are dead. They are not dead in the sense that there is an infection there, not dead in the same sense as you speak of a sequestrum as being dead, a piece of bone which is teeming with micro-organisms; but in the sense that there you have an inert, inactive extra-cellular material robbed of its cells and its blood vessels for the time being. If that animal had been left long enough, I have no doubt that both those bone ends would have become slowly re-vascularised and re-cellularised, but that means a delay in the process of repair. That is another argument—and a very strong one—for making your operation one which is mechanically efficient, because if, by any mischance, the patient you are considering should be the one in five, we will suppose, in which the bone ends become robbed of their blood supply owing to the mechanical violence done to them, then, if your mechanical fixation be sound, the bones will be kept in place all the time that the prolonged repair occupies; whereas if your method of fixation is unsound, then the absence of repair from the bone ends means, inevitably, mal-union.

I come, now, to describe certain operations. I have already indicated to you what I hope you will forgive me for saying—because I am

afraid it is rather a heresy to say it here—that I do not believe that bone surgery requires any special technique. I do not believe there can be degrees in aseptic precautions; but if there is one extra aseptic precaution which bone surgery, from its very nature, does demand, it is that the operator and his assistants should wear cotton over the rubber gloves, because the rubber glove is so easily perforated by a fragment of bone, or by the instruments which are used.

In almost every case where an operation has to be performed for a fracture, whether it be from a recent accident, or one which is of older date, one of the biggest problems, and one of the most important problems, is the exact restitution of the broken bone to its correct anatomical relation. I dwelt on that before, but you will remember I pointed out to you that one of the ways in which operations fail is when there has been failure to reduce a fracture completely; and I counsel you, if you find yourself faced by such a failure, that it is better to abandon the operation than to attempt to join the bones in a bad position.

Much has been said, and done, and written in the way of argument and operation to solve this part of the problem. When you face for the first time the fractured femur of a muscular man, with what appears in the skiagram to be an innocent overlapping of 1½inch, and you picture yourself putting it together, you are greeted with the most unpleasant surprise when you have exposed the fracture and attempt to put the bones accurately end-to-end. I have spent a good deal of time in trying different methods of solving this part of the problem; and the more I see of the problem, the more I am convinced on two points. One is; do as much as you can as a preliminary to the main operation. Secondly, use simple methods if possible. There are a great number of comparatively complicated appliances which have been introduced, all, of course, mechanically good; but you cannot work inside the soft parts of a man's thigh like you can work on the bed of a lathe, in a carpenter's shop, and anything like complicated mechanically appliances are rather to be avoided if you possibly can avoid them.

My first point, then, is, do as much as you can as a preliminary; that is to say, in a recent fracture, unless there is reason to prevent it, I would not operate upon a femur until the bone has been not only reduced to its full length, but over-extended, if anything. It does not matter about having half an inch of slack to play with, it is rather an advantage, and it is easy to bring about under ordinary circumstances. Put in a transfixion pin 48 hours before the operation, put on, under an anæsthetic, 40 lbs., and in 24 to 48 hours the bones will have become full length, with a little slack to spare. You can then do your operation in comparative comfort, and the pin can be taken out then, or incorporated in your after-treatment, your sling or plaster of Paris; it forms a very good point on which you can hold the lower end of the bone. Sometimes there may be some reason why you cannot do a preliminary operation, and if you are bound to do the whole thing at one sitting, it is serviceable to use some kind of mechanical aid, such as *this*. An ordinary bicycle saddle, which fits comfortably in the perineum, has a steel tube, with an iron angle at the end, and a screw, which gives a considerable multiplication, so as to permit of 200 lb. traction.

I show you another apparatus with some hesitation, because I am not sure it is of very great value; I do not often use it. It is for double tranfixion. It is shown as applied to the tibia and fibula. The lower pin is either put through the os calcis, or through the two malleoli, and the upper pin through the tibia only. The circular steel band allows you to adjust the upper portion of the apparatus to the lower portion, so that the rotation of one fragment upon the other can be corrected. These side bars represent reverse screws, and by their action you can get as much force as the breaking strain as the three-sixteenth inch pin will allow. I have still a lingering fondness for this apparatus, which took much thinking out to evolve, and which mechanically fulfils what is claimed for it. But one finds it is more painful than a single transfixion, and that it cannot be left in place long enough to bring about firm union of the fracture, and that, in nine cases out of ten, with a little care in the adjustment, you can get the same result by a single distal transfixion. Still, in certain cases, particularly in the tibia and fibula, it may be useful.

So much for the two preliminary points; asepsis and the getting over serious overlapping by preliminary traction. Then comes the question of bone holding. There are many appliances, all of which are very excellent; the only point is about the forceps which are represented here and which are not

manifested in all the varieties, is, that they can be put on to the bone and clamped into position so that they form a convenient handle to the bone, and can be left in place, held by their own catch. That (slide) represents the familiar manoeuvre of trying to adapt the two ends of bone together. This picture shows the laying in of the cricket bail into a medullary graft, which I shall speak of again to-morrow.

So much for the preliminaries: the asepsis, the preliminary traction, and the getting a firm hold of the bone, which will not then worry you throughout the operation.

Now a few points about certain definite operations, pointing out what I conceive to be their special indication. First, I deal with the modern development of what was originally known as wiring fractures, which the French have called by the more dignified name of cer-

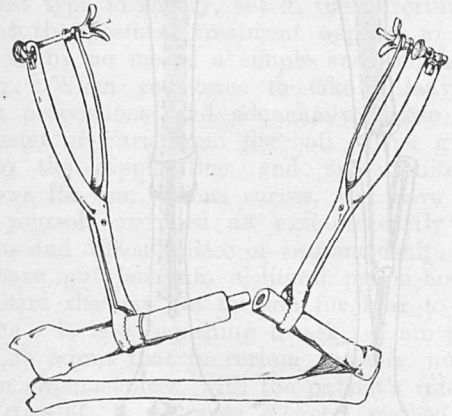


FIG. 14.

clarge, and which is now generally carried out by a flat steel band, invented by Parham, and now claimed by a number of people, with slight modifications. The principle is, that you have a soft-tempered steel band, with an enlargement and an eyelet at one end. You can bring *this* over, and pass it through *that* eyelet, surround the fracture, and turn the end of the steel over, cut it off, and it will hold. The band is loosely adjusted, then tightened by an appliance which holds on to the end of the bone through the hole. This operation, or something similar to it, can be carried out with wire, if the right kind is used. But this kind of cerclarge operation is particularly indicated for oblique fractures; and it gives the best results in fractures which are at least twice as long as the width of the bone. In order to get a satisfactory mechanical result, you want to put one band on each end of the oblique fracture, in the way I illustrated in a series of tibiæ and fibulæ in a previous lecture.

I now come to the use of intra-medullary pegs, which, I still hold, form an extremely convenient, simple and efficient method of treating a certain type of fracture the limitations of which are perfectly clear. Of course, the fracture must be a closed aseptic fracture, it should be a transverse fracture, and there must be no comminution. It presupposes a transverse fracture without any breaking of the two ends of the bone. There is only one little point in it to explain, and that is the central ferrule. Sometimes I pass a pin through them, but that weakens the peg at the point where it should be strong; and if the ferrule is too big and prevents the fracture ends coming together, it is easy to remove it, except the knob on one side, by a file, the object being that when one end is thrust into one end of the bone to prevent the peg being thrust too far down; it keeps it exactly half in one fragment, and half in the other.

This represents the method by which a short peg is introduced into such a bone as the radius or the ulna; I showed you examples last time. The particular point about the operation which makes it so simple is, that the bone ends need only barely be exposed; a comparatively short wound will be sufficient to put the peg in, and there need be no stripping of the bone ends. If, however, a peg of any length is used, and it is desired to make the peg not only a means of correcting lateral displacement, but also to provide an efficient internal splint, then some other method must be used. The peg is driven up into one fragment, and the other fragment is cautiously sawn down the middle, and then prized open, and the projecting end of the peg worked into its place, and the split distal end is united by a stout kangaroo tendon, or by a turn of wire.

I come, now, to some of the more special operations in which pegs are particularly useful. Two of them relate to the upper end of the femur. In order to summarise the indications, or the situations where I have found these intra-medullary pegs most useful, I may say, the upper end of the humerus, the radius, and ulna, the upper end of the femur, and the shaft of the tibia; always bearing three conditions in mind: a clean fracture, a transverse fracture, and no comminution.

The upper end of the femur often presents very great difficulties to traction treatment, because you cannot get a good hold of the upper end. It is true that by flexing and abducting the lower fragment you can often get over that difficulty. But when you get a transverse fracture in the neighbourhood of the small trochanter, I think it is of very great value to have a simple method of absolutely securing fixation and alignment. The fracture is first exposed through a small opening, and the ends of the bone refreshed if it is an old fracture; if it is a recent fracture, that is not necessary, you can just remove blood-clot. A drill is run up through the central cavity of the proximal fragment, and that comes out in the natural direction of the canal of the femur, through the top of the great trochanter. The point of the drill is cut down upon through a small opening above the great trochanter, and a previously prepared peg, 6 inches by half-an-inch, is run down through that opening and through the first incision. The point is made to find its way into the lower fragment, and the peg driven home by means of a little handle fitted on to the end of the peg, and hammered into its place. *Here* is the same type of operation, that is to say, the use of a peg as a nail; it may be illustrated in the case of the humerus. This is an instance where, practically, the operation is never required, unless there has been some very definite cause of mal-union. This was a War case, in which an improper plating operation had been carried out, improper in that not only was the plate inadequate as to length, but it had been applied without bringing the bones in contact, so there is a gap, and the screws had come out, and the whole strain of the man's arm was placed on the screws, and the man came with the signs of an ununited fracture. And in this case the same type of operation was done, which is easier in the case of the femur; that is to say, the fracture is exposed and freshened, the plate removed, the distal fragment bored down until the drill can be felt underneath the skin of the elbow, the previously prepared peg introduced, and driven up into the cavity of the humerus above. That gave a very satisfactory result, and the man was able to go back to fairly arduous manual labour.

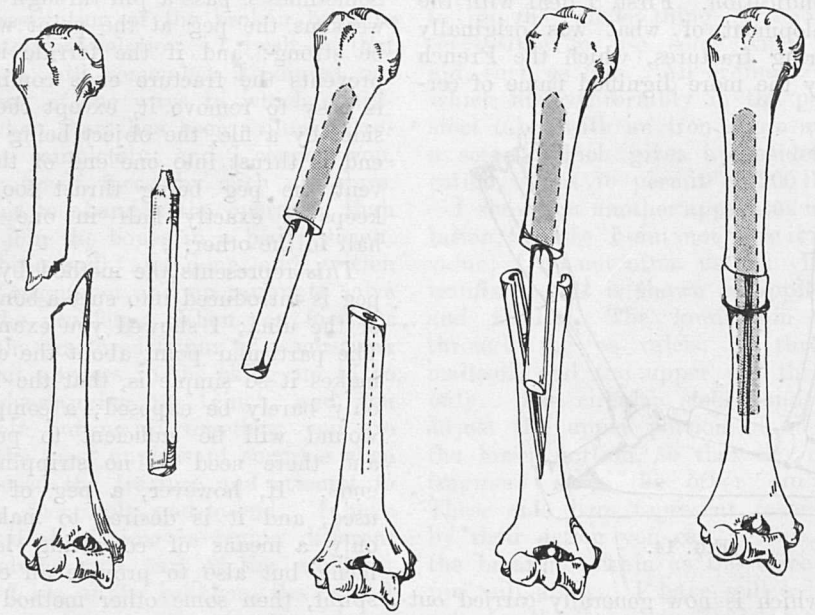


FIG. 15.

I come now to a subject which is a very important one, one which could easily occupy the whole hour, but which I must deal with in five minutes, namely, fracture of the neck of the femur. It is a most interesting subject, both for discussion and for examination. I do not propose to upset your orthodoxy in any startling way, neither do I propose to worry

you with distinctions as between intra-capsular and extra-capsular fracture, and so on; but I want to draw your attention to the fact that any fracture which is proximal to the inter-trochanteric line, that is to say, any fracture which is mainly intra-capsular, has a very great tendency to non-union. Personally, I have no doubt as to the reason of that. It is two-fold. It depends, first, on the inadequate blood supply of the proximal fragment, which, in the adult, practically gets no blood, except through the reflected fibres of the capsule; and upon the fact that when the fracture has occurred, there is never any satisfactory apposition between the fragments. I pointed out to you, in my first lecture, that such a condition could be dealt with by postural treatment, but although I placed postural treatment in my first category, as representing the very simplest type in theory, yet to the unfortunate patient the postural treatment applied to the thigh is by no means a simple and delightful matter. When you come to take a lady of ample proportions, and adequately encase her in plaster of Paris from the ball of her great toe to the nipple line, and make suitable windows for her various curves, you have not only yourself executed an extraordinarily laborious and difficult piece of craftsmanship, but you have put her into a literal prison-house, and there she has got to stop for four to six months. It is a big thing to ask. I am prepared to admit that in certain patients, under certain circumstances, with the patient's intelligent consent, it is quite a good method of treatment; but it is, in my opinion, absolutely superseded by the open operative method in all cases, except in those of patients whose general vitality makes even a simple operation out of the question.

This case is one of very considerable interest, because I think it is a most marked instance showing the inherent tendency to non-union in a fracture in this situation; because although you are accustomed to talk about ununited fractures of the neck of the femur as though they only occurred in old people, yet that is a mistake. It is true that the neck of the femur is much more liable to fracture in aged persons, but, given a complete fracture of the neck of the femur, it is as liable to non-union in the young as in the old patient, provided it is a complete fracture, and proximal to the inter-trochanteric line. Perhaps you would hardly believe that there is a fracture here; but that little bit of bone in this skiagram indicates it. The line of fracture is almost exactly along the inter-trochanteric line. It occurred in an athletic boy, aged 20, who fell from a height and almost killed himself. He had a fracture of the humerus, and injury to his musculo-spinal nerve, etc. He was kept in bed for other reasons, and we hoped that this fracture, being in such a perfect position, would give us no trouble. But you see what had happened in three to six months, viz., absorption of the neck of the bone. (Skiagram.) And that is one of the points in which this fracture differs from almost all other fractures in respect to the choice of operation; that the time of choice is a limited one. In the fractures of shafts of bones, usually, you can take time to consider, the patient can think things over, and your prospects of success are not very much different after a month than after a week, or even after three months. But in the case of a fractured neck of the femur, almost inevitably part becomes absorbed, and no operation can restore them to their original condition. A year after the accident, when the boy had recovered his health ,and his arm was all right, I operated upon him, and put him in a peg; it was a beef bone peg, and you see he has got very good union of the neck of the femur. I did it through an open operation, but he has got a shortened neck, and a rather stiff joint, which he need not have had if circumstances had allowed us to do the operation soon after the accident.

In contrast, I show you what I regard as the correct routine treatment. This, again, is from a young patient, and by "young" I mean up to 50 or 60; he was only about 30. There are many different operations suggested for these cases. I can only very briefly indicate to you what their nature is, and why I advocate the method I do. The first point about which a difference of opinion exists is what I have already referred to. Whitman, of New York, has rightly pointed out—and much credit is due to him for it—that these cases can be successfully treated by abduction and plaster of Paris splints. But, according to this method, the patient is walking about long before he would otherwise be free of his plaster of Paris cast. The second point about which much difference of opinion exists is, ought you to expose the ends of the bone? A very attractive proposition, and, like many other attractive propositions, very insidious, is to leave the frac-

ture alone altogether, and to take certain points, of which *this* is one, just below the most prominent tubercle on the outer side of the great trochanter, abduct the leg, and draw a line to the opposite anterior-superior spine, make a tiny incision and a little hole, and drive your nail in, to a length determined by the skiagram, trust to Providence, and to your measurements, that it is going in the right direction! I am prepared to admit that very good results have been achieved in that way. But it is a big thing, and it is very important for the patient. And it seems to me you are bound to do it better if you freely expose the fracture from in front or behind. It is easy from behind; the capsule is much thinner, and you can see everything easily, and have the satisfaction of knowing your fracture is in perfect apposition, and from a separate opening you can put in the nail. *Here* is the case after treatment by a nail. Another point is, that I aim at getting the opposite extreme to a coxa vara, viz., slight coxa valga, opening out the end of the femur to allow of some absorption. I generally use a beef bone peg, square in shape, and half an inch in diameter. The reason I use dead rather than living bone I shall go into tomorrow when I speak of bone-grafting. Incidentally, I may mention you must take a big peg if you take an autogenous graft.

Very briefly, I conclude these illustrations of operative methods by showing you another method by which very great efficiency can be added to the plating. I pointed out how screws are apt to break loose, particularly if they are used with a short plate and depend on their own friction grip. A curved plate can be put on in that way and fixed by a bolt, and it is easy if, as in this case, you are dealing with the lower end of the femur or humerus or tibia, where you can work through opposite incisions, put your plate on, and the bolts on one side, and the nuts on the other.

The same principle can be applied either to the use of a double plate, or to the fixing of a bone-plate, or a bone-graft. *This* shows you the mechanics of it, used for an indolent old fracture. The ends of the fracture have been refreshed, the metal plate has been put on one side to act as a splint, the bone graft has been put on the other, and the whole bolted together. That represents a separate stage altogether, the bone being replaced and plated on one occasion, and the bone graft being fixed on another.

But with regard to the mechanics of it, here is a fracture of which a diagram was taken at the time. The fracture is exposed, refreshed, and brought together exactly. A number of longitudinal saw-cuts are made in it, so as to help stir up the bone and open up fresh vascular channels for callus. Then previously prepared graft plates, made out of ivory or ox bone, and clamped to the two sides of the femur, and the whole fixed in position by four bolts.

The Newland-Pedley Prize Thesis :

Difficult Extractions—Their Causation and Treatment, Immediate and Subsequent.

Read before the Dental Society by C. A. WAKEFORD, L.D.S., R.C.S. Eng.

(Concluded.)

3. *Premolars.*—The first premolar is not frequently displaced in either jaw; and the second premolar, if displaced, usually presents itself lingually in both jaws, but buccal displacement is not uncommon.

These teeth can usually be removed by straight or Reid's forceps applied from the opposite side of the jaw or by lower forceps applied from the same side and titled inwards. Occasionally, however, it is impossible to grip the tooth with forceps, and in these cases the tooth can be removed with a straight elevator, using with great care, the first molar as a fulcrum.

An unerupted maxillary premolar can also usually be successfully extracted by applying the lingual blade of the forceps well inwards and pushing well up.

4. *Molars.*—The first and second molars in both jaws are rarely so misplaced as to cause serious difficulty in extraction.

The third molar teeth, however, are notori-

ously liable to displacement, and this occurs more frequently in the mandible than in the maxilla. Inflammatory conditions which are frequently associated with these displacements and the proximity of neighbouring structures further complicate the extraction.

The mandibular third molars may be found in almost any position in the neighbourhood of the angle of the jaw. They may be completely or partially buried in the ascending or horizontal ramus and in addition may be impacted against the second molar or a supernumerary. The most common displacement is a tipping forwards against the second molar, although a horizontal position with the occlusal surface facing the distal surface of the second molar is common. Buccal and lingual displacements are not infrequent, and cases have been reported of proximity to the coronoid and condylar processes and even of complete inversion.

The third maxillary molar does not usually cause as much difficulty as the mandibular, but, on account of its anatomical relations and the increased difficulty of access, the operation may be more complicated. It may take up any position in the neighbourhood of the maxillary tuberosity or the posterior wall of the maxillary sinus and may also be impacted against the second molar or a supernumerary.

After a careful clinical examination and observation of the skiagrams it is first necessary to decide whether any alveolus must be removed before extraction is attempted. If there is doubt on this point it is best to make an attempt first, and if this is a failure then remove sufficient bone.

A suitable incision (which is usually anteroposterior, though it may be in any convenient direction) is made through the gum and mucoperiosteum which are retracted sufficiently by periosteal elevators adequately to expose the bone. The operation field is swabbed as clear as possible with sterile sponges. The application of styptics may be of use. There is a difference of opinion among operators whether to use a gouge and a hammer and chisel or a bur to remove the bone. This is frequently a question of experience, but it seems that more control can be exercised over the bur, particularly at the back of the mouth. Occasionally both methods can be conveniently combined, and often a sharp elevator serves this purpose.

The route which the tooth is intended to take during extraction must be carefully considered and sufficient bone removed to prevent a "secondary impaction" during the operation. It may also be necessary to enlarge the socket of the tooth with a suitable fissure bur.

It is important that the radiograms should be present during the operation.

When it is considered that sufficient bone has been removed an attempt is made at extraction. It is usual to commence the extraction with an elevator, which may be the only instrument necessary, or forceps may be used after loosening has been effected.

Gibbs, however, says, "Contrary to conventional teaching forceps are much to be preferred for the removal of these teeth. . . . The tooth, having been grasped, the forceps should be driven into the tissues with all the force of which the hand holding them is capable, whilst the left forefinger and thumb must on no account be removed from their position (round the alveolus at the back of the second molar) in order to help by pressing with one of them on the back of the forceps. At the same time that downward pressure is made, the handles of the forceps are depressed and every effort made to prevent the lingual blade from slipping off the tooth. In a difficult case, however, this will happen many times and the forceps must be reapplied again and again. The tooth will usually soon be loosened especially if lying horizontally, for rotates on its long axis. . ."

Most authorities are not in agreement with this method which, of course, depends on the nature of the extraction, and as each is potentially different from the rest, it is impossible to lay down definite rules.

The straight elevator gives more mechanical advantage and requires less room for application, but it requires more control than the curved instrument. The type of elevator, again, is often a question of individual usage.

Of the extraction of a third mandibular molar, Gibbs says, "The sharp point of the elevator is now applied to the facial aspect of the neck of the tooth, and by applying pressure the crown is forced through to the lingual side from under the overlying second molar and is hooked forwards by the thumb or forefinger, as the case may be. No attempt should be made to force an elevator between two teeth as this and the subsequent leverage applied

are apt to damage the distal root of the second molar."

Many authorities, however, do apply the elevator between the teeth, without untoward happenings, and in addition usually attempt to take the tooth out in an upward or outward direction because of the structures lying lingually and in spite of the dense layer of bone buccally. The point of application of the elevator may be anywhere mechanical advantage can be obtained in accordance with the intended path of removal.

Schreiber reports an interesting case of a third maxillary molar facing upwards and forwards, posterior and buccal to the antrum. An incision was made high up on the buccal sulcus through the mucous membrane and the mucoperiosteum, which were retracted. A long fissure bur was inserted through the bone for the characteristic "enamel feel." When this sensation was recorded, sufficient bone was removed to allow an elevator to pass round the tooth and gouge it out buccally, the great difficulty being to avoid displacement into the antrum.

Kells advocates, with impacted third molars, cutting off the crown with a long fissure bur and removing it with special forceps. The root is then drawn forwards into the place where the crown reposed. This method is not usually necessary, but is often very expedient.

5. *Impacted Teeth.*—Of the three methods of treating an impacted tooth—

(1) By an orthodontic appliance.

(2) By removal of the impacted tooth.

(3) By removal of the impacting tooth.

we are concerned only with the last two.

If rarefaction or a carious cavity can be detected at the point of impaction in the impacted tooth, then it should, in general, be removed. If a second and third molar are impacted, but apparently normal in structure, it is not usually sufficient to extract the second molar. There are not sufficient cases on record to draw definite conclusions, but the third molar rarely erupts into good position and infection frequently occurs. Again, if the second molar tooth is functionless it should be removed prior to extraction of the third molar. In impaction between second and third molars some consider it justifiable to extract the sesond molar if this will in any way aid in extraction of the third; while others consider this an unnecessary sacrifice of a functioning tooth. If the second molar is normal it is not usually necessary to extract it unless the operation will very greatly be facilitated and shortened.

Impaction of any tooth in the mouth may occur, but it is rare in those teeth which erupt early. Canines are frequently impacted, and premolars often against neighbouring teeth or against deciduous or the remains of deciduous molars. Roots occasionally become impacted and cases are recorded of a root of a lower second molar becoming impacted between the first and third molars. There are many curious cases of impaction on record.

The principles of treatment are similar to those applied to impaction between second and third molars.

6. *Supernumaries.*—These teeth rarely give rise to extractive difficulties, but occasionally they may have distorted roots. They are most common in the incisor and third molar region and may be completely or partially erupted. They may in addition be impacted. These conditions have already been considered.

7. *Odontomes.*—Difficulty in actual extraction of teeth involved in epithelial odontomes is not uncommon; thus Astley Cooper reports a case where a dentigenous cyst, when opened, disclosed a third molar firmly implanted in bone.

The more irregular and larger composite odontomes offer most difficulty in extraction on account of the "keying" of the alveolus in their irregularities, the possible brittleness of the irregularly calcified tissues, the proximity of neighbouring structures, and on account of their size.

The principles are similar to those of extraction of a third molar, but the irregularity of the odontome and its brittleness make the operation more complicated and extensive and may possibly involve resection of the jaw.

8. *Buried Roots.*—Roots, buried in bone or even in gum, particularly when small and in an edentulous patient may be very difficult to locate. A twisted wire plate held in the mouth while X-rays are taken may offer considerable aid.

After an incision has been made through the mucous membrane and periosteum and these have been retracted it may be necessary to remove sufficient bone so that the root can be shelled out of its socket with an elevator, or can be grasped with the forceps. The root

may be located, when difficulty arises, by inserting a long fissure bur through the alveolus until the root is felt by the characteristic change in tissue density.

4. Inability to Open the Jaws.

Whether this condition be due to one of the many causes of mechanical interference or to muscular spasm (trismus) the condition obviously renders the application of instruments difficult or impossible according to the degree of closure.

Abnormally small mouths bordering on microstoma may also prevent convenient application of instruments, particularly to third molars.

Ether should be administered to produce muscular relaxation and the mouth opened as far as necessary with a convenient gag. The condition of the jaws, particularly, if there be adhesions within or without the joint, may require previous surgical treatment. Should there be no room for the usual forceps, a special pair must be used or, what is more usual, a straight elevator. The amount of available access is sometimes very small indeed and considerable dexterity is required to remove the tooth with an elevator.

Post Operative Treatment and Sequelæ.

It is not intended to consider such avoidable accidents as laceration of the lips, passage of a tooth into the larynx, or those accidents due to faulty technique.

After the operation it is necessary to maintain the patient's general health in as high a condition as possible by dieting, exercise, laxatives and tonics.

Infection.

The high blood supply of its tissues, the high resistance of its stratified epithelial covering and the frequent flow of alkaline saliva are factors in the high resistance to infection of the mouth. Similar factors contribute towards its high recuperative powers.

Immediately after an extraction, tissues, which are not normally exposed, are exposed to an influx of bacteria, which, with the attendant trauma and lowered local resistance, have every opportunity of settling down, proliferating and increasing in virulence and pathogenicity. Besides these factors the possibility of infection depends on the general resistance of the patient and the bacterial content of the mouth.

The ground rock of prophylaxis of pathogenic infection is drainage and efficient irrigation with suitable antiseptics. A tooth socket in a normal extraction is filled with blood clot and heals by granulating from the apical region to the mouth of the socket. It should be endeavoured to promote this method of healing. Whether to scrape the socket as a routine has been debated, but it is not usually necessary unless the socket is dry, as it exposes fresh tissues to infection.

The question of packing the wound is also a moot point, but if frequent irrigation is employed it usually serves no useful purpose. If the cavity is large, however, it is good practice to instruct the patient to pack it lightly before meals to prevent the access of food débris. The modern tendency is not to pack oral wounds as long as irrigation is assured.

The wound should be syringed every three hours with a mild antiseptic, and especially after meals, for two days after the extraction, or until healing is well promoted, and then continued after every meal until recovery is complete.

Mouth washes and mouth baths properly used are invaluable additions.

A localised osteitis always develops to a limited extent, but normally resolution quickly occurs. Spicules of bone and bone damaged in the course of extraction may separate off in this manner. If the necrosis becomes more general and tends to spread, the condition becomes serious and may progress to extensive necrosis. The acuteness of the infection depends on the type and virulence of the invading micro-organisms and is more liable when an apical abscess or pyorrhœa pocket has previously existed.

The treatment is antiseptic and expectant, pieces of bone being removed as they become loose. Intra-oral hot fomentations are frequently advisable.

The further spread of infection—to the floor of the mouth, tonsils, pharynx and larynx, septicæmia, toxæmia, pyæmia, and phlebitis—will not be considered in detail. A case has also been reported of considerable infusion of blood into the neck after extraction of a lower third molar.

Post-Operative Pain.

"The treatment of pain following extraction," says Gibbs, "will consist in removing the cause if possible, in the application of

anodynes, and possibly the administration of general sedatives."

The causes of this pain are in some cases obscure, but are usually due to trauma of neighbouring structures, infection, or the presence of a foreign body, such as a fractured root or a piece of broken amalgam filling. Nervous and infective pre-extractive conditions pre-dispose to pain, which may be local or neuralgic in character.

Hot anodyne and astringent mouth baths held in contact with the wound usually give great relief, and good results can be obtained by packing the wound with certain proprietary preparations containing "chloretone."

The application of escharotics, although these may temporarily relieve the pain, is of doubtful ultimate value.

The wound should be very carefully inspected for the possible causes of pain.

If it is decided not immediately to remove a fractured root it may be necessary to destroy the remainder of the pulp which is causing pain.

Maintenance of drainage, asepsis, as far as possible, and frequent irrigation go far to reduce the after pain to a minimum.

Post-Operative Hæmorrhage.

Besides hæmophilia and other general conditions which have already been considered, the hæmorrhage may be primary, reactionary or secondary. Reactionary hæmorrhage is the most usual, occurring up to 24 hours after extraction; secondary hæmorrhage is stated to be very rare.

The routine treatment should be firmly to plug the socket with wool or gauze soaked in a suitable styptic such as adrenalin or turpentine and to cause pressure to be maintained by instructing the patient to bite on a pad applied over the packing. A "cotton wool roll" soaked in almost boiling water and pressed over the socket is often effective.

If these methods fail, other styptics may be tried; and if these result in failure it is necessary to syringe and clean out the socket and inspect it carefully for the origin of the hæmorrhage. It may be possible to seize a spurting arterial point with artery forceps. The administration of hæmostatics internally is of doubtful value.

In very grave cases the oral, rectal, intravenous or subcutaneous infusion of saline, or a blood transfusion, have to be considered together with the question of tying the external carotid or plugging the mandibular canal; but these operations are outside the province of the dental surgeon. As the object of treatment is to keep the blood pressure in the oral region as low as possible it is important that the patient shall be kept in a cool room.

Post-Operative Syncope.

Syncope may occur before, during or after the extraction. The treatment is similar to that for shock except for the application of warmth. A draught of one fluid ounce of "Mist. Ammonia" usually takes good effect.

Injury to Nerves.

The mandibular nerve is the only one of clinical importance which is reported to have been damaged after removing molars or premolars. This is manifest by anæsthesia in the areas supplied. The treatment is expectant and antiseptic and recovery usually occurs in two or three months, but loss of sensation may be permanent.

Injury to Gums.

This is usually avoidable, but occasionally extensive laceration occurs. It is necessary to sever the tissues from the tooth with gum scissors and to suture them in position if, in the opinion of the operator, the blood supply will enable them to regenerate.

Injury to the Temporo-Mandibular Joint.

Previous affections of the joint predispose to this, particularly osteo-arthritis. Dislocation as an extraction sequelæ is fairly rare, but may occur with mandibular molars. The treatment is replacement with the addition of a four-tailed bandage.

Hysteria

may manifest itself before or after the operation. It calls for the usual firm handling, removal of sympathetic friends and possibly cold water douches.

Inability to Open the Jaws.

When not due to infection this condition is usually due to infiltration of the tissues with fluid consequent on trauma in the molar region. The treatment consists of the usual antiseptic precautions and insisting on the patient's exercising the jaws to the greatest possible degree to prevent adhesions. It is often advisable for the operator to assist in this exercise.

Fracture of a Root.

It is difficult to give any definite immediate treatment for the fracture of a root which may

be entirely unavoidable. If it is considered that the remainder can be removed without undue laceration an attempt should be made; but it is usually unwise to attempt the removal of an eighth of an inch of apex. It is necessary to inform the patient who will report any symptoms which may follow. The subsequent inflammation usually loosens the root so that it may be easily removed or absorption or extrusion may occur.

When the root has not been removed X-rays should be taken and again after six months or a year. In this way if it is not decided to remove the root it can be kept under observation for the possibility of infection.

Fractured roots can occasionally be removed by screwing an extraction screw into the root canal and extracting in the usual way.

The surgical removal of these roots is carried out as that already described for buried roots.

Fracture of Bone.

This may vary in extent from the separation of small spicules of bone, which is common, to fracture of the jaw.

When comparatively small fragments of bone are separating, the treatment is again antiseptic and expectant, pieces being removed with tweezers as they loosen. Smoothing with a stone or curretage may be of value.

More extensive fractures occasionally occur owing to no fault of the operator and are frequently due to some pre-existing condition. Thus Gibbs reports a case of extensive fracture of the maxilla occurring high up in the alveolus, and involving the hard palate, when an attempt was made to remove the second maxillary molar. A long standing empyæma of the antrum was disclosed which had made the surrounding bone thin and brittle.

Malignant disease, senile atrophy, certain nervous affections, general paralysis of the insane and fragilitis ossium predispose to fracture.

In the maxilla a fracture of the outer alveolar plate involving two or three teeth in the molar region is not uncommon, and the maxillary antrum may be laid open. Salter records a case where during the extraction of a maxillary central incisor a portion of bone, corresponding to the two premaxillæ, was isolated and only held in position by the soft tissues.

The fracture of the maxillary tuberosity, which usually exposes the posterior part of the antrum, is not an uncommon sequelæ to the extraction of the third maxillary molar. Cattlin records a case where portions of the sphenoid and palate were also removed in this extraction, deafness and restricted movements of the mandible resulting.

The antrum usually heals over when even a considerable part of its wall has been removed, such as the maxillary tuberosity.

The treatment of fracture of the alveolus—whether to remove it or retain it—depends on its size, position and blood supply. If the stability of adjoining teeth is involved it is best to replace it and keep it in position by suturing the soft parts or by splints. When it is realised that a fracture of this type has occurred, it is necessary to desist immediately from the extractive movements and by gently moving the tooth to palpate and discover the exact extent of the fracture. By supporting the bone with the disengaged hand it may be possible to remove the tooth, or if not, the fractured part should be immobilised.

In the mandible, if fracture of either alveolar plate occurs it is usual in the first molar region.

If complete fractures of either the maxilla or mandible occur the usual treatment of jaw fractures is indicated, by replacing the fragments, immobilising them and by the maintenance of asepsis.

Passage of a Root into the Antrum.

When the regional anatomy of the upper molars and first premolar is considered it is remarkable that this accident does not occur more often. It may be possible carefully to remove the root with a pair of tweezers or to syringe it out; otherwise, the case should be referred to a nose and throat surgeon, who will probably remove it through the nose. It is very doubtful indeed whether the oral opening should be enlarged and the removal attempted in that direction. The usual maintenance of asepsis is indicated.

Occasionally the passage of a root into an extensive abscess or cystic cavity has been recorded. This calls for treatment of the original condition when the root will be incidentally removed.

While not agreeing with Burns of San Francisco, who considers that the present-day method of extraction is haphazard and dangerous, it must be admitted that many of

the methods are by no means ideal. There is room for research for new types of forceps and elevators; our methods of attempting to render the mouth aseptic need considerable improvement; and much is often sacrificed to expediency and rapidity. It is a question of trial and error and of individual alertness and perception. As Foster says, "Nature is ever making signs to us, she is ever whispering to us the beginnings of her secrets; the scientific man must be ever on the watch, ready at once to lay hold of nature's hint, however small, to listen to her whisper, however low."

BIBLIOGRAPHY.

1. Bennett, N. G., "Science and Practice of Dental Surgery," chs. ii., iii., xxix. and xxxii. (1914).
2. Blair, "Mouth and Jaws" (1918).
3. Coleman, "The Extraction of Teeth" (1908).
4. Colyer, F., "Dental Surgery and Pathology" (1923).
5. Cooper, A., "Dentigerous Cyst in connection with a third mandibular molar" (*B.D.J.*, 1919).
6. Endelman, "Accidents of Extraction" (*Dental Cosmos*, 1905).
7. Hewett, "Anæsthetics and their Administration" (1922).
8. Gardner, B.. S., "The Use of the Chisel and Mallet in the Extraction of Teeth" (*B.D.J.*, 1921).
9. Gibbs, "The Extraction of Teeth" (1912).
10. Guerini, "History of Dentistry" (1909).
11. Gilmour, W. H., "A Peculiarly displaced Upper Central Incisor" (*B.D.J.*, 1919).
12. Kell's "Impacted Third Molars" (*Dental Cosmos*, 1918).
13. Lapersonne, "Supernumary Teeth developing in the Orbit" (*B.D.J.*, 1921).
14. Lamb, F. D., "The Investing Tissues and the Extraction of Teeth" (*B.D.J.*, 1920).
15. Marshall, "Operative Dentistry" (1920).
16. Parfitt, "Operative Dental Surgery" (1923).
17. ——, "Some Mechanical Principles of Everyday Practice" (Trans. Odent. Soc., 1906—7, vol. xxxix.).
18. ——, "Perforation of Second Lower Molar by Mandibular Nerve" (*B.D.J.*, 1921).
19. Rowlands, R. P., "An Impacted Upper Wisdom Tooth" (*B.D.J.*, 1921).
20. Schreiber, "Unusual Case of Third Molar Impaction with Complications" (*Dental Cosmos*, 1919).

Perforated Peptic Ulcer.

By R. P. Rowlands, F.R.C.S.

THE following instances of perforated peptic ulcer, recently come under my care, illustrate several important points in the diagnosis and treatment of this grave catastrophe. They show that early diagnosis, which is the essential basis of successful treatment, is not always easy, and particularly that the lull which often follows the agony and shock of the perforation is apt to mislead even experienced, well-trained and careful medical men. This uncertainty and delay in diagnosis coupled with the fear of the consequences of a blank laparotomy (especially in elderly and decrepit patients), leads to disastrous delay in the application of the only treatment that is hopeful. Experience shows beyond doubt that perforation of a duodenal ulcer is almost invariably fatal unless an operation is performed and also that the mortality varies almost directly with the number of hours wasted before the operation is undertaken. It is sad to think that the death rate from peritonitis due to this and other similar disasters has not diminished in recent years; the war had its bad effect. According to the Registrar General's Report for 1921, 567 men and 110 women died in England and Wales from duodenal ulcer, the large majority of these deaths being from perforation.

For these reasons it appears to me to be worth while discussing the salient points in the diagnosis and treatment of this overwhelming calamity which demands such prompt and efficient attention. It is no less true that prolonged and careful after-treatment is necessary to ensure complete and permanent recovery so that the need of further operation may be avoided.

Case 1.—The patient, a woman aged 51, had suffered from indigestion for years. She had had a very severe attack with pain, vomiting, and hæmorrhage 11 years ago and another 5 years ago. For the last few weeks she had vomited every evening and had much pain in the stomach, which had increased during the last three or four days. At 2 a.m. on 27th November, 1923, she was seized with violent pain in the epigastrium, running down to the pubis. She vomited once and the bowels were open once, soon after the onset of the pain. Her doctor saw her at 9 a.m. and found her more comfortable, with pulse and tem-

perature normal. She was seized with another attack of violent abdominal pain at 2 p.m., but when the doctor saw her an hour later she was again better and he was in doubt whether a perforation had occurred or not. I saw her at 6 p.m. The abdomen was then somewhat full, especially above the pubis, almost fixed, rigid and exquisitely tender, particularly in the left hypochondrium; there was dulness in the left flank in front and behind and tympanitic resonance in the right flank with almost complete absence of liver dulness. I believed the patient had a perforation of a gastric ulcer to the left of the middle line and advised immediate operation.

Operation.—Left paramedian incision. Gas at once escaped. There was a very large collection of pus and serum in the left side and thick lymph in the diaphragm and in front of the stomach making it difficult to recognise the latter. There was thin sero-pus in the pelvis, but the right iliac fossa was clean; there was a little pus in Morison's pouch and a large collection of gas there and also under the diaphragm on the right side. The perforation, which was a large one, easily admitting a quill, was found, unexpectedly, to the right of the falciform ligament, in the stomach close to the pylorus in front. It was closed with fine catgut and a tag of great omentum was sewn over it. The fluid had been mopped away in the meantime by gauze rolls passed in various directions. A short tube was inserted in a stab wound above the pubis and another in the left loin, the median wound being completely closed in layers. Very little discharge came through the tubes which were removed at the end of 24 hours.

The patient's recovery was rapid and apparently complete, but some six weeks later, after returning to her home in Ireland, she died from a severe gastric hæmorrhage.

Case 2.—A man aged 68; bronchitic; twenty-six years ago he had had a severe attack of pain in the right hypochondrium, but had been well since until a month ago when he suffered from indigestion very suggestive of duodenal ulcer, the pain being relieved by food. At 4 p.m. on 8th January, 1924, he was suddenly seized with violent pain in the right hypochondrium running down to the pubis. His doctor arrived an hour and a half later and found him collapsed and unable to move and that the abdomen was rigid. He was carried up to bed. The temperature and pulse were subnormal and the pain was still severe. When I arrived at 7.30 p.m. the pain had abated although no sedative had been given. The temperature was 98·4°; pulse 72; and respiration 25; but the abdomen was just as rigid and the patient could not take a deep breath. There was no change in the resonance and the abdomen was not distended. Tenderness was most severe in the right flank and right hypochondrium; there was no rub or other sign of pleurisy. I advised immediate operation, but the doctor could not believe that a perforation had taken place because the patient appeared to be so much better with normal pulse and temperature. He and the relations welcomed the suggestion of another opinion, and a physician was called in who, however, confirmed the diagnosis and pressed for immediate operation, which was undertaken at 11 p.m. The temperature had then run up to 100 and the pulse was 90.

Operation.—A very large perforation, easily admitting an index finger, was found in the front wall of the duodenum close to the pylorus. The hole was closed with some difficulty, fine catgut being used, the stomach being folded over the first part of the duodenum and the lesser and greater omentum being brought over the suture line to seal it off. There was free turbid liquid and gas in the right flank and also some similar fluid in the pelvis—about 1 pint in all. The parietal wound was therefore drained with a short tube which was removed after 24 hours.

The patient is doing well, although his temperature went up to 102° 48 hours after the operation, and he coughed up rusty sputum for a few hours.

Symptoms and Signs.

Although it is true that in a few cases the calamity of a perforation does appear like "a bolt from the blue," in the large majority there is a history of indigestion of the duodenal type, with hunger pain, but it is often difficult to get this history at the critical time when the patient and his friends are preoccupied. The symptoms are usually worse for two or three days and then the characteristic sudden and awful pain in the epigastrium comes on, striking the patient down so that he is often unable to move or to take a deep or even normal breath. Shock, which is almost always marked, has occasionally led to sudden death. As a rule, however, it passes, so that the patient, who is at first pale and cold, with a slow feeble pulse and subnormal temperature soon regains his colour, and, although the ab-

domen remains rigid and tender (especially in the right flank), he is often found a few hours later almost free of pain and with normal pulse and temperature. Later this lull passes, the pulse quickens, the temperature rises and the flat abdomen fills and becomes more exquisitely and uniformly tender; the signs of diffuse peritonitis get more and more obvious. In several late cases I have found great diminution of the liver dulness due to free gas in the peritoneum.

Diagnosis.

The history of the sudden onset of agonising pain in the epigastrium and the tenderness and board-like rigidity of the abdomen (at first most evident in the right hypochondrium and flank, but later becoming general) are characteristic of this condition. The rigidity does not pass even when the pain lessens; morphia does not abolish it and it sometimes persists under ether anæsthesia. This condition alone cries aloud for early exploration and a blank is justifiable when such signs are present. It is, however, necessary to exclude right-sided pleurisy or early pneumonia. Such rigidity of the abdomen is never caused by biliary or renal colic; perforation of the gall-bladder may do so, but in any case this rare event calls for immediate relief by operation. Perforation of a high-placed appendix is more likely to be confused with perforated duodenal ulcer, but this also demands immediate laparotomy. The 2,500 people who die annually in England and Wales from appendicitis are victims of sheer delay in carrying out the only reasonable and safe treatment.

Operation.

While preparations are being made, shock is treated by warmth and saline infusions, and morphia often acts like a charm by relieving pain. No time is wasted, everything is got ready, every needle threaded, before the anæsthetic is given. The abdomen is opened by a long incision high in the right rectus muscle. Gas, and often bile-stained liquid, at once escape. The hand feels the indurated duodenum. The greater part of a gauze roll is guided into the pelvis to mop up the collection of liquid which is usually there, and the end of the gauze is fixed to the towel. The effusion under the liver is mopped away and the pylorus is seized in the left hand and brought forward displaying the perforation which is almost always on the anterior surface. This is closed by two layers of fine catgut sutures passed parallel to the axis of the bowel so that the lumen may not be appreciably narrowed. The near edges of the greater and lesser omentum are sewn together over the perforation. When the perforation has been closed the gauze rolls are withdrawn and the peritoneum is left in a dry condition. It is safer, easier, cleaner and more effective to mop up the extravasation and effusion with gauze rolls than to irrigate the peritoneum and leave it soaked and wet. Drainage is rarely necessary when the peritoneum is left dry. It is enabled to look after itself; danger lies in the hidden pool of infective material. A tube above the pubis, extending into the pelvis, is rarely required and it has often set up adhesions with subsequent intestinal obstruction by bands.

To save life it is usually enough to close the perforation and the mortality is considerably increased by making a short-circuit at the same time.[1] This fact is especially important for this urgent operation has frequently to be performed by surgeons of little experience whose main ambition should be to close the perforation and save life. If a gastro-jejunostomy becomes necessary it is safer in the large majority of cases to do it as a secondary operation. Experience shows that it is not often necessary if adequate medical treatment be adopted after the first operation. It is obviously wrong to do it in all cases when only a few ever require it even as a secondary operation. Stewart and Barber[2] strongly support this view and give clinical and experimental evidence in favour of it; they report 24 cases with 22 recoveries after simple suture and show that infolding of ulcers near the pylorus rarely causes obstruction. On the other hand Deaver and Pfeiffer[3] strongly advocate primary gastro-jejunostomy as a part of the treatment of perforated gastric and duodenal ulcer in the absence of severe shock or evident systemic toxæmia. On two occasions I have had to operate for jejunal ulceration following gastro-jejunostomy performed for perforated duodenal ulcer and in each case I found the duodenum had healed without stenosis.

1. E. C. Cutler and F. C. Newton, in the Boston Med. and Surg. Journ., May, 1923, p. 789, found the mortality of simple closure to be 19.4 per cent. and of closure plus gastro-enterostomy 24.3 per cent.
2. Ann. of Surg., 1922, Part 351, p. 349.
3. Ann. of Surg., 1921, Part 340, p. 441.

A Case of Malignant Tumour of the Left Kidney associated with Acute Parenchymatous Nephritis and Uræmia.

J., æt. 60, a sailor, admitted into Lazarus Ward, under Mr. Fagge, on 7th December, 1923, for pain in the loins and persistent hiccoughing. The following history was elicited from his friends:—

Family History.—Good.

History of Previous Diseases and Injuries.—Thirty-one years ago, yellow fever. One year ago, badly burnt across chest.

History of Present Disease.—In 1921 the patient had an attack of pain in the left lumbar region shooting down to the genitals, accompanied by hæmaturia.

Six weeks before admission, when at sea, he had retention of urine; a month later he complained of difficulty in micturition and pain in the loins.

On 4th December, 1923, while still on board ship, he had acute pain in the left lumbar region, passing down to the genitals; he was treated by the captain, who obtained instructions by wireless from neighbouring ships' surgeons. Hot water bottles were applied to his back and he was given fluids in large quantity. On landing he was brought straight to Guy's. His bowels had not been opened for a week.

Condition on Admission.—The patient was hiccoughing loudly and continuously. The tongue was furred, dry and cracked; there was much pyorrhœa. He complained of pain in the loins, more severe on the left side, passing down to the thighs. Speech was thick, cerebration slow, but he was quite sensible. There was muscular guarding all over the abdomen and tenderness on deep palpation in the left lumbar region. A tumour was felt in the left upper quadrant, which was thought to be an enlarged spleen. The pupils were contracted. There was some injection of the vessels of the sclerotics and some proptosis. The face appeared congested. All the reflexes were normal. Blood pressure (systolic) 125 m.m. Pulse 95, temperature 98° F.; respirations 20. The heart appeared to be normal.

In the Surgery the general gastro-intestinal symptoms of hiccoughing, abdominal pain and constipation somewhat obscured the clinical picture of renal disease, and the patient was taken in to the Surgical Ward as a possible case of intestinal obstruction. Later in the day, when a more detailed history had been obtained and hæmaturia was shown to be present, Mr. Fagge saw the case and suggested that the hiccoughing was due to uræmia. The blood urea was estimated the same evening and found to be 3.5 gms. per 1,000 c.c. (12 times the normal).

Examination of Urine.—Specific gravity 1020. Alkaline. Albumen, blood and micro-organisms present. No acetone bodies.

Progress of Case.—At 1 a.m. on 8th December, the patient was still hiccoughing violently. A hot air bath was given and hot water bottles applied to the loins. Large quantities of fluids were given by the mouth and Mist. Pot. Cit. prescribed. These measures caused profuse sweating.

At 10 a.m. the patient appeared semi-comatose; the lower jaw was dropped and there were occasional muscular tremors. He had only passed ten fluid ozs. of urine since admission. Temperature 100° F.; pulse 100; respiration 30.

Dr. Poulton saw the patient and recommended:—

1. Lumbar puncture. Determination of urea content of C.S.F.
2. Determination of plasma bicarbonate.
3. Should the plasma bicarbonate be lower than normal, passing a pint of saline, containing the necessary amount of Sod. Bicarb. to bring the alkaline reserve up to normal, calculated by a special formula, every hour, through a duodenal tube.[1]

The C.S.F. was under pressure and contained 3.8 gms. urea per 1,000 c.c. (normal 0·3). Plasma-bicarbonate was 0·026 molar concentration (normal 0·034). A mixture was prepared consisting of equal quantities normal saline and 1·3 per cent. Sod. Bicarb. The duodenal tube was passed, but after two pints of the mixture had been poured down, the patient became so violent, and afterwards exhausted, that the tube had to be withdrawn at 8 p.m.

Previous to this at 5 p.m. the radial pulses were observed to be unequal, 100 on the left side, 80 on the right. This phenomenon was not observed again. After the withdrawal of the tube large quantities of fluids were given by the mouth and rectum, including 1·3 per cent Sod. Bicarb.

An enema given on this day had no effect. Eight fluid ozs. of urine were withdrawn by catheter, and four fluid ozs. were passed during the day. The patient desired to micturate, but could only pass a few drops. The urine had the same characteristics as that previously examined.

On the following day the patient was somewhat more comatose; he was incontinent of urine and fæces. He continued taking fluids well.

At night he became somewhat more restless and was given Heroin. When seen at midnight his respiration was of the Cheyne-Stokes type.

For the next two days the patient remained in much the same state; he was occasionally somewhat violent and delirious and was given sedatives. He continued taking fluids well up to 8 p.m. on 12th December. He died in coma at 3.20 a.m. on December 13th.

Post-Mortem.—A large tumour, shown by section to be a carcinoma of the kidney (hypernephroma) was found at the upper pole of the left kidney. The growth was very vascular and there were many hæmorrhages into it; it had broken down in the centre and contained pus which had passed into the pelvis of the kidney. The left kidney was seen, on section, to contain pus in many of its tubules—an ascending infection from the pelvis. There was a slight amount of parenchymatous nephritis, but in parts the tubules appeared normal. The right kidney was very congested; there was a well marked acute parenchymatous nephritis seen on section. There was no infection of this kidney.

Secondary deposits of the growth were found in the lungs, heart muscle and pancreas.

There were multiple abscesses in the lungs with surrounding pneumonia, and acute pleurisy. There were acute, breaking-down ulcers on the vocal cords. There were well marked arterio-sclerotic changes in the aorta.

Discussion of Case.—From the difficulty in diagnosis when the case was first seen, and the subsequent progress of the case, it will be seen that the uræmia was primarily of the gastro-intestinal rather than of the nervous type, the patient suffering at first from violent hiccoughing and obstinate constipation, followed by secondary nervous symptoms, viz., contracted pupils, occasional and inconstant delirium, dyspnœa and muscular twitchings, while the epileptiform seizures of the nervous type of the condition were absent. The following conditions were considered as possible causes of the uræmia:—

1. Calculous anuria.
2. Acute nephritis.
3. Congenital cystic disease.

Of these the first seemed at the time to be the most probable. The condition of calculous anuria may arise from—

A. Bilateral calculi.
B. Obstruction of one kidney together with either—
   (i.) Partial or total destruction of the other kidney by disease.
   (ii.) Congenital absence or atrophy of the other kidney.

The symptoms of the condition are renal colic on one or both sides, desire to micturate, but the inability to pass more than a few drops of bloody urine, followed by uræmia of the gastro-intestinal type.[2]

Acute Nephritis was considered to be a likely diagnosis, although the uræmia from this cause is more often of the nervous type.

Congenital Cystic Disease.—This seemed unlikely as bilateral tumours were not palpable, nor was there any history of passing large quantities of urine prior to the anuria and uræmia.

The post-mortem findings gave a complete explanation of the symptoms and signs clinically observed. The uræmia must be supposed to have arisen from the combination of the lesions present in a manner analogous to the uræmia in "anurie calculeuse toxique" described above. In this case the functioning power of one kidney was partially destroyed by the growth and the infection, while the other kidney was put out of action not by an obstructive lesion, but by the acute nephritis.

With regard to the acute nephritis in the right kidney, it seems probable that the strain placed upon it by the very imperfect functioning of the other kidney, proved too great for it, weakened as it was by the toxæmia, by the presence of malignant disease for, we must suppose, at least two years, and by the numerous secondary deposits in other parts of the body, thus leading to an acute parenchymatous nephritis as a terminal event.

It is interesting to note that the patient was carryon the active life of a mercantile marine officer until nine days before his death, there being no signs of malignant cachexia observable.

I am indebted to Mr. Fagge and Mr. Medlock for permission to publish this case, and to Professor Adrian Stokes and Dr. Nicholson for examining the sections.

NORMAN BURGESS.

REFERENCES.

1. F. Cook and A. A. Osman, *Guy's Hospital Reports*, 1923, Vol. lxxiii., p. 246.
2. Allbutt and Rolleston, *A System of Medicine*, Vol. iv., Part I., p. 702.

Correspondence.

The Appendix in the Acute Abdomen.

DEAR SIR,—Your contributor, "Post Triginta Annos," in his most excellent paper says that his thirty years' experience leads him to consider appendicitis to be by far the most common cause of the "acute abdomen."

May I say my thirty years' experience coincides with this. I go further; the appendix is a considerable factor in the great majority of abdominal cases acute, subacute and chronic. May I shortly mention three recent cases to the point?

CASE 1.—Male, aged 64. Diagnosis: threatening duodenal ulcer, in which Sir W. Hale-White concurred. Put to bed under the usual treatment. In the middle of this rest and diet developed an attack of appendicitis. Appendix removed. Duodenal symptoms have never recurred although the operation was performed over three years ago.

CASE 2.—Male, aged 57; sudden hæmatemesis in middle of night; several pints of blood-stained fluid; collapse; taken into nursing home; hæmatemesis and tarry motions for several days; septic phlebitis left leg; abscess; septic pneumonia.

Occult blood persisted in stools for months. One day slight tenderness and pain in appendix region. Appendicectomy. Occult blood ceased, and patient has now been back at his work as a farmer for six months.

CASE 3.—Female, aged 58, married; several grown-up children. Attacks of abdominal pain for past 20 years or more. Signs indefinite. ? Gall stones. ? Appendix.

Operation; chronically twisted, kinked and inflamed appendix removed, and gall-bladder

emptied of numerous gall-stones and drained (gall-bladder not removed). Result—uninterrupted recovery.

The point is—in all these three cases (and I could quote many more) the appendix was found abnormal, either twisted or kinked or chronically thickened. But how a diseased appendix could cause hæmatemesis I am at a loss to explain as in the Case 2. He had been under Dr. Hurst, to whom I sent him. At the operation in this case I very carefully made a digital examination of the pyloric region, but could detect nothing abnormal.

In any case of old-standing chronic "indigestion" it seems to me we ought to hold the appendix suspect. And in *children* the appendix is the very devil.—Yours, etc.,

GERALD SICHEL.

Notes from America.

DEAR Mr. Editor,—I don't know if you have seen ethylene gas used as an anæsthetic at Guy's yet, but if not perhaps a slight account of its scope might be of interest.

Ethylene gas was introduced as an anæsthetic at the Presbyterian Hospital, Chicago, about six months ago, since when it has almost entirely superseded nitrous oxide at many of the clinics.

Some of the advantages claimed are:—

1. A rapid smooth induction, 3—5 mins.
2. A very slight fall in blood pressure.
3. Less tendency to cyanosis than with gas and oxygen. Oxygen is always given with ethylene.
4. No sweating, salivation or bronchial irritation at all.
5. Consciousness is regained in about 30 seconds.
6. No pre-anæsthetic is required.

The disadvantages of ethylene are:—

1. It is very inflammable.
2. Tissues bleed even more than under ether.

It appears to be a safe anæsthetic, but as the largest series of collected cases is about 1,700 no reliable data on this point are yet available.

Ethylene stands midway between nitrous oxide and ether as regards muscular relaxation, and for high abdominal operations it is necessary to combine it with either ether or local. Dr. Dean Lewis describes it as perfect for all limb surgery.

As an illustration of its usefulness the way in which Dr. Sistrunk utilises it in partial thyroidectomy can be cited. When the required portion of the gland has been removed and all the visible vessels ligatured, the patient is allowed to come round and is told to cough. In this way any vessels not secured are made to bleed, when they are caught and ligatured. The amount of post-operative oozing has been diminished by this manœuvre. The patient is then put under again for sewing up. Obviously only an anæsthetic with a rapid, smooth induction and recovery could be used in this way.

So much was being said over the lunch tables at the College when I left on the subject of peptic ulcers, that I feel I ought to apologise for mentioning the subject, but in any case you have your wastepaper basket right there, so here goes.

Anything like uniformity of opinion about the correct treatment for duodenal ulcer has not been attained at the various hospitals and clinics I have so far visited. At one extreme there are those who maintain that medical treatment on the lines laid down by Sippey of Chicago in this country, properly carried out, is always successful. At the other are those who, at first following Finsterer and now probably exceeding his teaching, would perform a partial gastrectomy on every case of duodenal ulcer. The latter aim at removing the ulcer-containing part of the duodenum, the pylorus and pyloric antrum, but, if the pancreas is involved, the operation is limited to removal of the antrum of the healthy stomach by Polya's method. Thus after the stump of the stomach has been anastomosed to the jejunum the ulcer of the duodenum is "excluded" and in the absence of acid "rapidly heals."

The removal of the pyloric antrum has been found to be followed by a complete achlorhydria, perhaps due to the loss of an hormone which activates the acid glands of the cardia. At the Mayo Clinic achlorhydria is not regarded as a "consummation devoutly to be wished" and this operation is not performed primarily for duodenal ulcer. When a jejunal or gastro-jejunal ulcer has formed after a previous operation, however, Dr. Judd performs partial gastrectomy as he has found that no type of anastomosis alone will cure these cases.

If the ulcer is on the anterior wall of the duodenum it is usually excised and Dr. C. H. Mayo combines this with a pyloroplasty so as to prevent spasm of the sphincter.

If the ulcer is not accessible, posterior gastro-jejunostomy is performed, an operation which is successful in attaining a cure in 94 per cent. of their cases. One slight difference of technique is of interest. Instead of suturing the edge of the hole in the mesocolon to the line of the anastomosis, it is attached to the stomach fully one inch from the suture line. The idea is to prevent narrowing of the anastomosis by tension or contraction of the mesocolon.—Yours sincerely,

B. L. LAVER.

Rochester,
Minnesota, U.S.A.
15th January, 1924.

Rowing Club Dance.

DEAR Sir,—Concerning the rumour of a revival of the Rowing Club Dance, it is hoped to hold this function some time in May, possibly on the day of the Inter-Hospital Race.

The Dance Committee originally intended to hold this dance on the 29th of February. An application was made for the Court Room. Unfortunately the Governors could not see their way to grant this privilege.

It was decided that, owing to the increased financial risk which would be incurred by holding the dance outside the Hospital, a postponement would be advisable so as to secure a greater amount of support.

We earnestly hope that every Hospital man will do his best to ensure success to this event as the dance had to be abandoned last year owing to a previous monetary loss.—Yours truly,

January 29th, 1924. ARTHUR TOM, *Hon. Sec.*

Sport.

Rugby Football.

Guy's Hospital v. Birkenhead Park.

MANY years have I stood and watched games at Honor Oak Park, and many more have I sat and watched them from the stand, but never have I been on the Guy's ground in such a succession of wind and rain storms as swept the ground on Saturday, January 19th. A wet morning had turned to brilliant sunshine and all seemed fair and promising. Birkenhead Park had arrived with W. H. Taylor, our old and stalwart forward among them. As soon as the visitors appeared on the field the rain commenced, and as it gradually gained force the ground became almost a swamp.

Very shortly after play commenced the ball was punted well towards the Park's line. Here Van Schalkwijk sent out and Fellows-Smith just managed to get a try right in the corner. Tregarthen tried for goal without success. Just after this the ball became slippery. To handle it was a miracle, which Guy's managed to achieve occasionally. Then Lowry dribbled clear. He had only to kick it over the line and score, but the ball stuck fast and he missed his kick and fell over. Steyn was almost in at the other end. Infringements were plentiful, though it seemed almost impossible to avoid them. An extraordinary bout of passing followed and Fellows-Smith was almost in again.

The Park forwards still strove manfully, though Spence was defending in fine style. Just as half-time arrived the sky cleared.

On resuming, the storm came on again with redoubled fury. Guy's, with the wind now at their backs, had all the best of the game territorially, but a quarter of an hour of the terrible conditions was enough for players and spectators. The game had became farcical and it was useless to continue. Thus by mutual consent, it was abandoned as a draw.

Guy's Team.—P. D. B. Spence, G. Fellows-Smith, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, W. Meissner, J. G. Van Schalkwijk, W. D. Doherty, B. G. Scholefield, N. M. Holloway, G. G. Cameron G. G. T. Tregarthen, J. W. Schabort, W. De Wet Vorster, E. H. Fouraker.

Guy's Hospital v. Gloucester.

Before commencing this report, we should like to place on record the excellent arrangements Gloucester made, notwithstanding the strike on the railways, to fulfil this engagement. They always meant to come and once that decision was made, no inconvenience by rail or road mattered. They arrived well up to time and one can but hope their tedious journey did not affect their play.

The ground was again heavy and slippery, though this did not prevent the Hospital from handling in the most wonderful manner. The pace of the whole side was fast, the threequarters especially outclassing their opponents both in handling and in speed. Within a few minutes of the start the Hospital were 6 points up. The first try came from Steyn. The passing which led up to it was perfect and enabled Steyn to elude his opponents and run over with Finnemore in close attendance. The next try came from Holloway, who played his usual sound game. Neither was converted. Tregarthen tried, but the ball was by then very heavy. B. G. Scholefield got our third try. Spence tried to convert this, but the attempt was poor. Both wings had made good efforts to get over and all the back division had played well. Though the determined going for the line which characterises the play of both J. W. Finnemore and G. Fellows-Smith deserves note, it hasn't always been a feature of our wing play.

The second half had scarcely commenced before Steyn crossed the line again. This was our fourth and last try. Gloucester lacked the services of T. Voyce, the International, which was a pity. But for

all that it would, one thinks, have taken a very hot side to beat the Hospital as they played on Saturday 26th. Fifteen minutes after the second half had started the Hospital pack were rather overplayed by their visitors and no doubt the latter finished the stronger.

The final score was Guy's 4 tries (12 points), Gloucester nil.

Guy's Team.—P. D. B. Spence, G. Fellows-Smith, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, F. Bekker, J. G. Van Schalkwijk, W. D. Doherty, B. G. Scholefield, N. M. Holloway, G. G. Cameron E. F. Fouraker, J. W. Schabort, G. G. T. Tregarthen, De Wet Vorster.

The whole team played exceedingly well. May one tell them how to retain "The Cup"—"Get fitter and fitter every day! The skill is there, but the necessity is to become so fit that you will stand any strain better and better every day!"

Guy's Hospital Cross Country Section.

DURING this season Guy's have found three new men, G. W. Rake, J. H. Chitty and W. D. Jones, to take the places of L. G. Housden, R. S. Chambers and J. L. Faull who no longer run for us. We should like to discover many more people to come along and make it certain that the Kent Hughes Cup will remain in the "spit" for several years to come, *especially this year.*

Congratulations to G. W. Rake on two very fine runs recently for the S.L.H. On December 15th against the Orion Harriers he was 22nd out of 129 competitors, and won the first prize in the S.L.H. handicap out of 79 members. On January 5th he ran well in the London to Brighton Relay, taking over from M. E. M. Jago at Horley.

N.B.—Date of Kent Hughes Cup Race will be definitely settled shortly.

Guy's Hospital Musical Society.

Patron, H. Cosmo O. Bonsor, Esq.; President, J. Fawcett, Esq., M.D.; Chairman of Committee, The Matron; Vice-Chairman of Committee, H. L. Eason, Esq., C.B., C.M.G., M.S.; Treasurer, W. M. Mollison, Esq., M.Ch.

On Tuesday, Wednesday and Thursday, February 26th, 27th, and 28th, at 8 p.m. prompt, in the Chapter House, St. Thomas's Street, S.E.1, the Society will render the following programme:—

1. "Fingal's Cave," Mendelssohn, The Orchestra.
2. "The Revenge," C. V. Stanford, The Choir and Orchestra.
3. "Mock Morris," Percy Grainger, The Orchestra.
4. "Trial by Jury," Gilbert and Sullivan, (by permission of R. D'Oyly Carte, Esq.)

Musical Director and Conductor, Mr. Herbert Y. Templeman.

Producer, Capt. E. C. Gallagher.

Prices of Admission, 5/9, 3/6, 2/4, and 1/3 (including Tax).

All seats are numbered and reserved.

Tickets may be obtained from The Matron's Office, The Wills Librarian, and the Honorary Secretaries.

As the seating accommodation is strictly limited, applications should be made early and should state the day for which tickets are required.

It is earnestly hoped that the Society will receive the support of all sections of the Hospital, particularly as the profits are to be devoted to the funds of the Nurses' Cottage.

CHAS. E. GALLAGHER,
MAURICE MITMAN,
Hon. Secs.

Notices, etc.

Papers by Guy's Men.

Arthur F. Hurst, M.A., M.B., F.R.C.P. An Address on Addison's (Pernicious) Anæmia and Sub-Acute Combined Degeneration of the Spinal Cord.—*B.M.J.*, 1924, i., p. 93.

J. A. Ryle, M.D., M.R.C.P. A Case of Lead Poisoning in the wife of a Lead Worker.—*Clinical Journal*, 1924, liii., p. 29.

Alan H. Todd., M.S., F.R.C.S. Arthroplasty: A Critical Summary of a discussion at a Meeting of the International Society of Surgery.—*Brit. Journ. Surg.*, 1923, xi., p. 319.

Sir Arbuthnot Lane, Bt., M.S., F.R.C.S. A Clinical Lecture on Chronic Intestinal Stasis: or, Our Mechanical Relationship to our Surroundings.—*Brit. Med. Journ.*, 1924, i., p. 142.

Change of Address.

Miss Alice M. M. Park, from Guy's Hospital to The Foreign Hospital, Tong Shan, North China.

G. B. Dowling, M.D., 90, Harley Street, W.1. ('Phone: Mayfair 3311.)

Publications Received.

Isis, New Cambridge, Cambridge Gownsman, Indian Medical Gazette, Royal Dental Hospital Magazine, Sydney University Medical Journal, New York State Journal of Medicine.

Royal College of Surgeons of England.

SYNOPSIS of Hunterian Lecture on Infection of the Alimentary Tract, to be delivered in the Theatre of the College in Lincoln's Inn Fields, on Friday, 8th February, 1924, at 5 o'clock p.m., by Professor W. Heneage Ogilvie, F.R.C.S.

The present views on the causation of infective processes in the alimentary tract. The inter-relation of infections in different organs worked out with special reference to the lymphatic paths by which infection may spread from one organ to another. The uncertainty as to the method by which the primary focus has become infected.

Recent investigations on physiology and bacteriology of the upper alimentary tract in health and in disease, and their bearing on alimentary infections. The evidence that bacteria are absorbed by the normal alimentary canal. Investigation of the processes by which the absorption of bacteria is carried out, and of the factors influencing their absorption. The choice of method. The results of feeding experiments, and of the insertion of insoluble particles into different portions of the alimentary canal and its associciated glands.

The path taken by insoluble particles after absorption from the alimentary canal. The paths by which insoluble particles are carried to the alimentary canal.

(a) By the peritoneum.
(b) By lymphatic channels.
(c) By the portal blood stream.
(d) By the general circulation.

The practical bearing of the results obtained, and their application to the surgery of the alimentary canal.

S. FORREST COWELL.
Secretary.

SPECIAL NOTICE.

THE Index to last year's volume of the GAZETTE is issued as a supplement to this issue. Those members of the Clubs' Union who obtain the GAZETTE from the Wills Library may apply to the Librarian for an Index, etc., if they place an order to have their GAZETTE bound, the Index will be included in the binding without further request.

LAST year the corresponding issue of the next GAZETTE was out of print within a few days of publication. All those who require extra numbers of the next issue of the GAZETTE are therefore advised to place early orders with the Wills Librarian or in the Counting House. The charge of extra issues to Students and Nurses is 6d. each.

WITH few exceptions there have not been many accounts of Sport published in the GAZETTE since the beginning of the year. We hope that those Secretaries who desire reports of their club matches to be printed will not fail to send them in to the Editor.

University of London Faculty of Medicine.

A Course of Lectures on "The Treatment of Contracted Pelvis," were given at the London (R.F.H.) School of Medicine for Women, Hunter St., Brunswick Sq., W.C., by Gibbon FitzGibbon, Esq., M.D., B.Ch., Master of the Rotunda Hospital, Dublin, at 5.30 p.m. on Tuesday, January 29th, Wednesday, January 30th, and Thursday, January 31st, last. The Syllabus was as follows:—

Lecture I.—General consideration of contracted Pelvis. Types of Pelvis:—(1) Generally Contracted (a) *Symmetrically,* (b) *Transversely:* (2) Generally Contracted Flat: (3) Simple Flat: (4) Obliquely Contracted and Distorted. Tables showing degree of contraction in various types and results of labour and treatment. Degrees of Contraction. The Fœtal Head.

Lecture II.—Diagnosis of Contraction. Clinical Examination of Cases. Ante-natal. Influence of Contracted Pelvis on Pregnancy. External measurements. Examination under Anæsthesia for estimation of proportions. Conclusions drawn from estimation of proportions. Internal Pelvimetry. Influence of Contracted Pelvis on Labour:—(1) On First Stage: (2) On Second Stage: (3) Moulding: (4) In production of variations of Vertex Presentation (a) *Fontanelle Presentations;* (b) *Parietal Presentations,* (c) *Mechanism. Impaction.* Effects upon Uterine action and Condition of Uterus:—(1) Inertia: (2) Excessive formation of Lower Uterine Segment.

Lecture III.—The Management and Treatment of Cases of Contracted Pelvis. Induction of Labour. Its position in treatment. Management of Cases at Term:—(1) Position of Cæsarean Section in treatment: (2) Indications for Section. Method of a Trial of Labour:—(1) Estimation of progress and prognosis: (2) Indications for Treatment. Consideration of Treatments for Contracted Pelvis:—(1) Forceps: (2) Version: (3) Pubiotomy: (4) Craniotomy.

Guy's Hospital Gazette,

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone. Hop 1086.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *February 16th, 1924.* *Number 929*

PASSIM

AT a meeting of the General Court of Governors, held on Monday, February 11th, the Treasurer, Viscount Goschen, C.B.E., resigned the Treasurership, in consequence of his appointment as Governor of Madras.

The Court accepted Lord Goschen's resignation and passed the following Resolution:—

"That the Governors accept Lord Goschen's resignation of the post of Treasurer with regret, and hereby place on record their unanimous appreciation of his faithful and distinguished services to the Hospital and Medical School during the last thirteen years."

Viscount Goschen, who was elected a Governor of the Hospital in 1903, and has been Treasurer since 1910, will leave for Madras in the near future. He will be accompanied by the sincerest congratulations and good wishes of all at Guy's, but also with feelings of regret that his new appointment must necessarily mean a separation, if only temporarily, from the Hospital and its inmates to whom he has proved so faithful a friend.

Mr. F. P. Whitbread was appointed by the Court to the vacant Office of Treasurer, and to him we offer a hearty welcome on accession to his new office.

Mr. Whitbread was elected a Governor of the Hospital in 1910, and in 1915 was appointed Acting Treasurer during the absence of Lord Goschen on War Service. He acted in this capacity until 1919, and since that date has been Vice-Chairman of the House-Committee.

▭

THE Residents' Theatricals have come and gone, and once more we have sunk back into the routine of hospital life. An account of the play, together with photographs and some of the songs, appears elsewhere in this issue, and we will not here dwell in detail on the subject of so much controversy. We can not, however, continue without expressing our praise of those who helped so much to preserve the great traditions set in past years. The acting of Mr. D. S. Davies was undoubtedly one of the best features in the play and quite equalled the standard set by any of his predecessors. The wireless receiving set together with "voices off," in the shape of Messrs. Jacobson and Strong, was almost a triumph of genius and at each performance, evoked roars of laughter. It was, indeed, with curiosity that we attended a certain lecture a few days after the performance. Romance had it that the title would now be changed, but all went well and apart from a few whispered expressions one might have thought that the play had already passed into oblivion.

▭

IN the whirl and turmoil of approaching Cup-ties we trust that all will remember the performances to be given by the Musical Society during the week after next. Full notices of these have been printed in previous issues of the GAZETTE. An enormous amount of energy has been put into the organisation of the Society by its enthusiastic supporters and we trust that they will be amply repaid, both materially and morally, by the time they ring down the curtain on the last of their performances. These are in aid of the Nurses Cottage at Honor Oak Park, a cause which we feel sure will meet with adequate support from all at Guy's.

It has, no doubt, been obvious to many that very few of us ever have what one might call proper instruction into the way parasites and insects get their names, and therefore into the way in which we ought to use their names ourselves. This failing in the medical profession has led to different observers, including many who teach in the Hospitals and others who have written medical text books, giving the same parasite different names, without reference to the scientific methods of nomenclature in general. Thus we have, for the same parasite, double names such as the following: —*acarus scabiei* and *sarcoptes hominis*. Cases have indeed been known where nearly fifty different names have been applied to one parasite, and yet amongst the whole fifty there was only one which was the real name.

It is in the hopes of alleviating this ever-recurrent confusion, which exists in the nomenclature of insects, that we print, on page 79 an article by Colonel W. P. MacArthur, the great authority in the medical profession on the subject of entomology.

The Rugger Cup-Ties, as far as the Hospital was concerned, started last week when we obtained an overwhelming victory over University College Hospital. Due acknowledgment, however, must be paid to our opponents whose standard of play and perseverance were far higher than the score might incline one to think.

On Thursday, February 28th, we meet Bart.'s in the semi-final. We trust that everyone in Hospital will remember this date and keep the afternoon free from any other engagement. A determined effort will be made this year to wrest the Cup from us, but we feel sure the team will not fail us when the struggle comes. Our hopes of victory, however, lie also in the amount of support which we render to those who fight for us. We trust that all will remember this and turn up at Richmond to give loud and sustained support to the Guy's Fifteen.

Our heartiest congratulations to Mr. Hickman, who recently left for Switzerland and surreptitiously carrried off the Cup in the Inter-Hospital Ski Competition. This is a new venture in Hospital Sport, but we trust that many will be found in future years to follow Mr. Hickman's excellent example.

On page 89 we publish a letter containing an appeal for help in the discovery of one of the Physiological Society's Minute Books.

Obituary.

LAURISTON E. SHAW, M.D., F.R.C.P. (Lond.).

THE death of Dr. Shaw, on Christmas Day, 1923, which we heard with so much regret, was referred to in a previous number of the Gazette, and in this further sketch and appreciation no attempt is made to record fully the achievements of his life, of which a more complete record will appear later in our Reports.

Although since the war Dr. Shaw took to wearing a short coat, soft felt hat, and the soft collars of that Cimmerian period, most old Guy's men will recall him best and most fondly in his "tall-hat" days, especially in the white one of summer, with his never-failing companion, wet or fine, the umbrella on his arm.

With his quick active step and head and body swaying somewhat from side to side as he walked down the Colonnade or along St. Thomas's Street, the ready smile, the rapid blinking of the eyes, particularly when asked some question, eyes which seemed to take in all and sundry in the process, there was never the least suggestion of invalidism about him, although perhaps he had throughout his life a greater experience of living on the brink of ill-health than, happily, falls to the lot of most.

Somewhere about the period when he qualified, and at intervals throughout his life, Shaw fought the bogey of hæmoptysis and its attendants with the same vigour, self-restraint, and unconsciousness of self which characterised his actions in the varied spheres in which he played his part. As in relation to his health, so in his work; be the cause popular or otherwise, if it was a good one, he would fight for it to the last ounce.

To maintain his forces in good order he

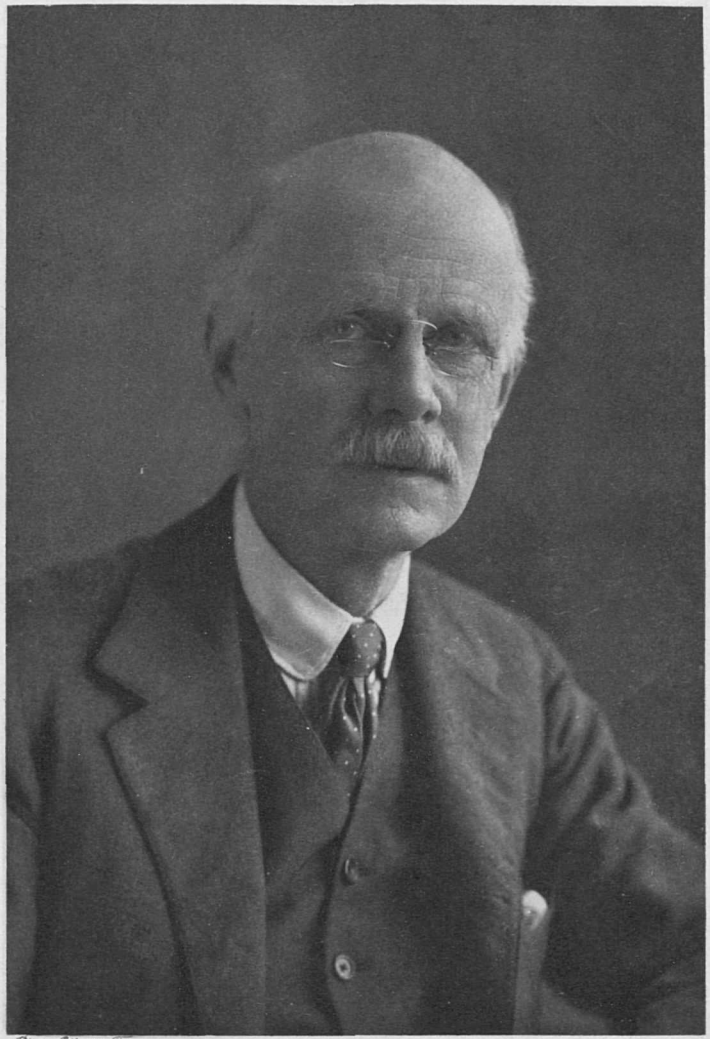


Photo: Elliott & Fry.

Laurie Shaw.

always took care to lead as healthy a life as possible. Shortly after qualifying, the bogey of hæmoptysis having made its first appearance, Shaw went a journey as ship's doctor to Australia on the "Sobraon," one, I suppose, of the last of the sailing ships chartered to take invalids for a long voyage, a favourite recipe for patients with pulmonary disease at that period.

In later years we often saw him enjoying himself at lawn tennis at Honor Oak Park, and he was also fond of boating on the Thames, of swimming, of bicycling, and of long country walks which he continued right up to the time of his fatal illness, which began to loom so darkly in August last.

Dr. Shaw was the son of Dr. Archibald Shaw, of St. Leonard's, and was born on March 31st, 1859, in London. He was at the City of London School under Dr. Abbott, and had for some time as his form master Mr. Rushbrooke, the late Head Master of St. Olave's Grammar School. Before entering Guy's as a student Shaw worked at University College, and his first appointment on the Staff of Guy's Medical School was in 1885, when he was Demonstrator of Biology under Dr. Brailey, who was at the time lecturer on that subject.

In December, 1886, Shaw was appointed Medical Registrar, and Assistant Physician to the Hospital in 1889, and Curator of the Museum.

From 1893—1901 Dr. Shaw was Dean of the Medical School, and he also gave for some years a most valuable course of Demonstrations on Pathology in the Museum. In due course Shaw was, in 1907, promoted to the full Staff, retiring in March, 1919, when he was appointed Consulting Physician to the Hospital.

Dr. Shaw married Miss May Spalding in March, 1922; their two sons were both born in St. Thomas's Street, Reginald, the elder, in 1893, and Maurice in 1894.

Reginald during the war became an officer in the 2nd Royal Sussex Regiment, and to the great grief of all who knew him was killed at Richebourg l'Avoué on May 9th, 1915.

Maurice, although serving throughout the war, happily survived; his student career at Guy's has recently terminated, and he is now, as Radcliffe Travelling Fellow of the University of Oxford, working with Professor Widal in Paris.

Mrs. Shaw was a most active and wise helper to Dr. Shaw throughout their married life.

As an example of the many ways in which they did sterling work for Guy's, one of the most prominent was the foundation of the Ladies' Association, a Society which continues to flourish and expand, and has been copied almost in its entirety by other hospitals in London and elsewhere. Mrs. Shaw acted as Honorary Secretary from the commencement in 1895 until 1919. The Salomons Infant Welfare Centre was another object in which both of them were deeply interested; they both were members of the Committee.

Throughout the whole of Shaw's tenure of office at Guy's the welfare of the Medical School was ever in his mind, and in its behalf nothing was too difficult to damp his ardour, nor too formidable for him to try to overcome if in any way possible. During the eight years in which he acted as Dean he was continually immersed in the duties of the post and achieved many successes. Living in St. Thomas's St. up till 1900, he was enabled to keep in close touch with everything which was going on and so to make full use of his powers of organisation and to exert direct control over the work in the Dean's Office with consequent invaluable advantage to the Medical School.

As Dean, among the many objects to which he devoted his skill and attention, the erection of the new School Buildings was one of the foremost. These buildings, now complete in every way, were started under his auspices with the large Department for Physiology at a cost to the School of £13,000. Another inestimable boon to Guy's students was the formation of the Clubs' Union by the amalgamation in 1891 of the various clubs and societies then existing in the Medical School, and also the purchase of the Club Ground of nine acres at Honor Oak; both were largely due to Shaw's inception and to his appreciation of the needs of the students, and of the desirability of improving the status of the constituent bodies. Dr. Shaw was the first Honorary Secretary, and the scheme which he had so much at heart has been an unqualified blessing to Guy's men ever since.

When Curator of the Museum he, with Sir Cooper Perry, began the revision of the museum catalogue. For several years the greater part of his spare time was devoted to this, and his work is incorporated in the first three volumes of the third edition. No record of

Shaw's activities at Guy's, manifold as they were, would be complete without a short reference to the subject of the concentration of common courses of instruction for the preliminary and intermediate subjects of the medical curriculum at one or more centres in London. Shaw believed whole-heartedly in the economical and educational value of "concentration," and as Secretary of the Concentration Committee of the University of London he did an immense amount of work. In 1901 the School had, at Shaw's instigation chiefly, expressed its approval of the general principle, but in 1903 that approval was withdrawn.

The last great work performed by Shaw for the Medical School was as Chairman of the Reconstruction Committee in 1918, when an inquiry was instituted into the staffing and teaching of all departments, and a most voluminous and valuable report, in large part founded on his suggestions, was drawn up and approved by the School in 1919.

Shaw was a popular and excellent clinical teacher. His greatest success in this direction was in the out-patient department, where many generations of Guy's men imbibed invaluable experience from the lucid and sound methods of his examinations and inquiries, with their telling quiet humour, common sense, and practical humanity. The demonstrations which he gave in pathology in the museum for several years were most attractive and instructive, and drew large classes to hear them.

Dr. Shaw contributed some valuable papers to the Guy's Reports, particularly those in conjunction with Sir Cooper Perry on a series of "Cases of Malignant Disease of the Stomach" (vol. xlviii), and on "Diseases of the Duodenum" (vol. l). In connection with his work with Sir Cooper Perry it is interesting to recall the remarks Dr. Shaw made at the presentation to Sir Cooper on his retirement from the post of Superintendent in January, 1920. Dr. Shaw said that he was told he had been chosen to make the presentation because it was believed that he was Sir Cooper's oldest friend at Guy's and had been more closely connected with him in his work than anyone else. Dr. Shaw then referred to the commencement of their friendship thirty three years before when they were applicants for the vacant post of Assistant Physician and Sir Cooper was selected. Dr. Shaw ended by saying, with his usual unselfishness and truth, that he had never for a moment ceased to be profoundly grateful to the Governors for postponing his election and securing for him one of the longest, closest, and happiest friendships of his life.

Robert Louis Stevenson in writing the biography of his friend Jenkins, refers "to the mingled pain and pleasure it gave him to dig into the past of a dead friend and find him at every spadeful shine the brighter," and so it is with Shaw. Outside Guy's his activities were many and varied. The social problems of professional life strongly appealed to him, and in that connection he worked hard for many years for the British Medical Association, until in 1911 the dispute over the National Health Insurance Act brought it to a tragic close. One of the writers of a part of the obituary notice, in the *British Medical Journal*, of January 5th, 1924, referring to this subject, said, "he knew that his support of so unpopular a measure must greatly injure, if not destroy his position as a consulting physician. It was not in him to waver." And another writer in the same number of the *Journal* sums up most truly Dr. Shaw's attitude by saying that "no one who knew him had any doubt as to the perfect honesty of the man, and those who were intimately associated with him realised what a great sacrifice he had made."

We are glad to think that a host of others besides his many friends and colleagues at Guy's never doubted his sincerity and honesty of purpose, and his complete absence of self-seeking. Nor did they fail to recognise the value of his ideals in the practice of his profession, and the high standard he set up for himself.

As far as the writer knows Dr. Shaw never referred to his experiences over the Insurance Act until June, 1922, when a presentation was made to him and Mrs. Shaw by the members of the London Panel Committee, of which he was a prominent member. In returning thanks Dr. Shaw said, "I can never forget the time when I was, perhaps, one of the most unpopular persons in the profession, when, owing to my disagreement with some of my colleagues I found nearly all the channels of my activity closed to me—political, educational, and professional"—and later, in the speech, he enunciated clearly his convictions on the subject of medical politics, as follows:—

"I should like to say I certainly disagree with the attitude taken that medical politics are no sort of politics, or derogatory, and

that there is something less valuable in medico-political work than in other forms of medical work. If I should place the usefulness of our work as medical men I would put first, of course, discovery, research. Next I place our medico-political work that enables those researches to be made available for the whole community." Towards this end the "great experiment" of National Insurance was in his eyes of supreme importance, a plant of many years' growth, and based on the grounds that he believed it was impossible for the vast majority of the population to remunerate adequately their doctors without some assistance in the way of national insurance, and that such a service could alone be successful with the general practitioners as the first line of defence.

"These two great principles," said Dr. Shaw, "the guiding principles of my medico-political life I found enthroned in this Insurance Act."

In November, 1915, Shaw had a very severe attack of pneumonia and for a time his life was despaired of, and he was so exhausted by it that he was unable to return to work at the Hospital until May, 1916. Then he seemed to get a fresh lease of life and was in active work until 1923, when in the early part of the year he began to show signs of a reawakening of the disease which had shadowed his life, and in August he became more seriously ill and had to take to his bed in the latter part of that month. This time, unhappily, the shadow continued to grow slowly but surely darker until it blotted out his life leaving a space which all who loved and honoured him can now but fill in memory of the past and in endeavour for the future.

"Dare quam accipere."

J. F.

Hospital Information.

Pass List.

Society of Apothecaries of London.

January, 1924.

Medicine.

F. James. H. Maclachlan.

Forensic Medicine.

F. James. H. Maclachlan.

Midwifery.

P. B. Skeels.

Royal College of Physicians.

M.R.C.P.

R. Hale-White.

Conjoint Board.

Final Examination.

January, 1924.

Medicine.

*R. R. Macintosh.
*S. C. H. Worseldine.
*H. P. Baylis.
*E. E. Neser.
*E. C. Seward.
W. A. Mill.
L. W. Houghton.
*S. P. Jacobson.
D. Davies.
J. Atkin.
*G. W. V. Parry.
*W. F. Payne.
*M. Rubinstein.
J. R. Vermooten.
A. Tom.
H. Geary.

Surgery.

G. C. Hughes.
*E. C. Seward.
W. H. Bradley.
*N. W. MacKeith.
*R. D. Owen.
*H. J. W. J. Westlake.
D. S. Todd White.
J. F. Goodenough.
S. P. Jacobson.
F. Martin.
H. N. Hearle.
W. S. Hunt.
A. Jowell.
H. C. Warner.
*R. D. Gross.
*I. E. Harries.
K. O. Parsons.
H. Levit.
*C. W. Greenway.
*J. C. Hewetson.
*W. R. Spurrell.
R. F. Smith.
*S. C. Rowbotham.
*T. G. W. Parry.
*A. B. Davies.
J. L. Le C. Walker.
D. A. L. Crawshaw.
R. E. Robinson.
R. J. Cann.
J. C. G. Dickinson.
F. J. Levy.

Midwifery.

L. W. Houghton.
A. Jowell.
J. S. Jacobsz.
H. C. Warner.
P. C. Bennison.
H. E. Blake.
H. K. Williams.
S. F. Durrans.
T. G. Tresidder.
J. G. Kingsbury.
G. H. Pitt.
S. C. Davison.
W. J. Montague.
J. E. Piercy.
T. M. Fripp.
W. G. Roberts.
L. A. S. Trott.
R. M. Jones.
P. G. Trafford.
*C. S. Hallpike.
S. H. Daneel.
R. R. Mackenzie.
S. P. Meacock.
J. H. Broadhead.

*Have now completed the Examination.

Change of Address.

J. F. Allen, L.D.S., The County Hall, March, Cambridge.

W. Carling, Rose Lawn, Portland Road, East Grinstead, Sussex.

The Treatment of Injuries of the Long Bones Produced by Accident or Disease.

Four Lectures delivered at Guy's Hospital, November, 1923,

BY PROFESSOR E. W. HEY-GROVES, F.R.C.S.
Professor of Surgery, University of Bristol.

LECTURE IV. *(Concluding Lecture).*—BONE GRAFTING: INDICATIONS, METHODS AND RESULTS.

LADIES AND GENTLEMEN,—I now come to the last and, in some ways, the most interesting chapter in the story of the repair of bone injuries, namely, that dealing with bone-grafting.

I am sorry that the time will not permit of my discussing the history of our knowledge of this subject, and of the very diverse views which have been held by different workers in this field at different times. I am afraid I shall have to practically leave that part of my subject, and merely refer you to the literature, which is at the access of all. I can merely summarise some of the points of the general theory of the action of a bone graft, and I can also draw your attention particularly to certain points about which there still exists a difference of opinion.

A graft used for the reconstruction of an injured bone may have one of three different rôles; it may act in one of three characters. It may act as a splint or strut, in which case, of course, you would compare it really to the action of a bone plate. But it can do what the bone plate cannot do, what, for example, a steel plate cannot do. It can also act as a conductor of bone growth from one fragment of the mended bone to the other. And both these properties, both the splint action and the conducting action, can be carried out by dead bone grafts as well as by living bone grafts. I am not prepared to say that the conductive activity is carried out equally as well by a dead as by a living graft, but certainly both these properties can be expected of both dead and living grafts. Thirdly, there is what I may call the creative function of the graft, that is to say, a graft may actually act as a source of new bone cells, and therefore of new bone. This is its highest function, it is the function which is most difficult to call forth, and it is the function which it is most easy, by any error in technique, to fail in obtaining; and it is the function which, by a good number of careful observers, was denied altogether, unjustly, I think, for reasons I shall give you in a moment.

So that, to summarise, a bone graft may act as a splint, simply holding the bones together; as a conducting medium by which the living bone cells travel from one fragment of broken bone to the other; and as a creator of new bone, by giving out its own living cells, and so forming a nucleus of new bone formation.

The relative value of different bones and of different parts of bones is a matter of some difference of opinion, and some dispute also. I should like particularly to emphasise two questions which are still unsettled; namely, the value of periosteum with its underlying bone used as a graft, and the value of small pieces of bone or bone chips, putting them together; and the second great problem, the relative value of dead and living bones. I am sorry I cannot show you a good illustration of the regeneration of bone from bone chips. The reason I cannot is, that these bone chips, after a time, can only be seen by the eye of faith, and that eye I lack. In my experience, both experimental and clinical, bone chips are valueless. It is true that putting a certain number of bone chips in and around the fragments of a fracture results in their eventually becoming consolidated in dense fibrous tissue, and possibly they stimulate the formation of that fibrous tissue. I am not prepared to deny them any rôle in the fixation of a fracture; but that they ever take any part in osteogenesis—the formation of new bone—I have myself seen no evidence of. And, to a less extent, that also applies to periosteal flaps. If you cut or chip off from the surface of a bone a thin layer with the over-

lying periosteum, and use that as a "wafer graft," as it has been called, you do undoubtedly get a little weak bone formation; and, as an addition to other bone formation, it may be of value. But that these thin chips, wafers, covered with periosteum, ever do anything in the way of re-forming good new bone I have, I say again, no evidence.

As regards the relative rôle of dead and living bone, the matter is one of extreme practical importance. I am sorry the time will not allow me to do more than just summarise my own views, and to give you the reason. I have already said I believe that dead bone can act as a splint, and that it can act as a conducting medium; it cannot, of course, act as a creator of new bone. Living bone can act in all three capacities. But when circumstances require that a bone graft shall be eminently strong, that it shall act as a splint, and one which must last for many months, then the splint function of the graft is more important than the osteo-conductive or the osteo-creative functions. You will remember the last slides I showed you yesterday, of an old fracture of the femur, where one takes two previously prepared ivory plates and clamps them over the fracture, they have to hold, for nine, possibly for twelve, months before the natural bone is strong enough to do without splinting. That is an illustration of a condition where dead bone is preferable to living bone, because it is more important to get the strong splint action than the vital osteo-creative action.

In general terms, living bone is the best graft to use, and it is the only graft which is of any use when a gap has to be filled. But these points I shall illustrate better by slides; therefore I merely wish to get over this summary of the whole subject on general principles before showing you the pictures.

The practical applications of bone grafting, as far as the surgery of the long bones is concerned, relates to the treatment of recent fractures, of fractures in which there has been delayed union, or non-union, and in making good the loss of substance, whether that loss of substance has been brought about by trauma or by disease. With regard to that summary of the indications, I would only make one remark: that bone grafting is *the* method of treatment for delayed union and non-union and loss of substance; there is no difference of opinion on that. But that bone grafting has any important rôle in the treatment of recent fractures I very much doubt. The whole point in the treatment of a recent fracture where you have no reason to suppose the bone is unhealthy, is merely to get the bone into accurate position, and Nature will then do the rest. And the natural bone, with its natural blood supply, is a far better former of new bone and callus than is an isolated graft, which when all is said and done, has the feeblest capacity for new bone formation. I am quite aware that it has been the fashion to regard the operative treatment of recent fractures by bone-grafting as the very latest word in the surgery of fractures; but the latest word is not always the best word, and I think that is so in the present instance. Of course, you can get good results, but, as I explained to you before, one of the most successful operations for the treatment of recent fractures is merely cutting down upon the fracture and seeing that the two ends of the bone are accurately fitted together. Whether you put in any fresh bone or not, the mere doing of that, provided things are healthy and satisfactory, will, almost certainly, bring about good healing. I might remind you—I do not want to bother you with a long table—of the different kinds of grafts which may be used.

First of all, as regards the source of the graft. The graft may be either autogenous—taken from the patient himself at the time of the operation, a living autogenous graft: or it may be homogenous, that is to say, taken from another patient, either just at the time, or in the 24 hours preceding and kept in cold storage until required. I dismiss that for the moment, because of its very limited practical use. There are many difficulties and disadvantages about it, and, practically, we need hardly consider it. Thirdly, there is the heterogenous graft, which is a graft taken from another animal, one of another species, and, for practical purposes, we may regard that as a dead graft; everyone is agreed upon that. Therefore, practically, as regards the source of the bone graft, we have to consider the living graft taken from the patient himself, and a piece of dead bone, taken from the domestic ox, or the eye tooth of the elephant or of the walrus: in other words, ivory, and very useful things they are.

As regards the portion of bone used—speaking now of the autogenous graft—I have already said you may take fragments of bone and periosteal slivers, or you may take chips

of broken up bone, or, what is most natural, take a long piece of a long bone, containing all three elements: periosteum, cortex, and medulla. Or, thirdly, you may take a whole bone, that is to say, a whole thickness of it. The best example is the fibula, not the lower end, but the whole thickness of a long bone. The third classification is the method of using a graft; and there I merely give you a list, because I shall illustrate them in a moment. I have already mentioned that you can use chips of bone, and a very attractive proposition that is. If you could clear out a cavity and fill

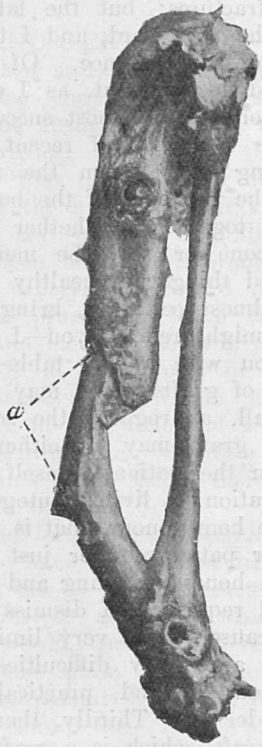


FIG. 16

(*a*) Graft. Faulty position, and no union between the graft and the lower fragment.

it up with bone chips and expect that, with a reasonable degree of luck, the chips would live and become vitalised, the whole of this problem would be simplified; there would be hardly any problem left. You may take a wafer of periosteum and wrap it round in the way the term indicates. Or in a fracture a piece may be taken from one fragment, and a groove cut across the fracture, and a piece cut with a twin saw or between parallel lines, and it may be slid across the fracture; the so-called "sliding graft." Or you may take a piece of the cortex of the bone—and that applies particularly to the tibia—and fashion it more or less roughly by means of some dowelling tool, making an intra-medullary peg. Or, instead of taking a whole graft and putting it into the middle, you may just shape the two ends, like a cricket ball is shaped, fill the gap with the thick piece, and push into the medullary cavity. Or you may take a large piece of graft and put it not only into the gap, but

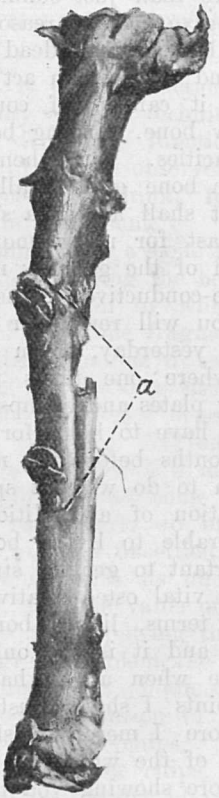


FIG. 17

(*a*) Graft, fixed by split pins.

make it lap over, that is, extend on one side or the other, so as to be in contact with healthy bone on each side. That is known as the "massive graft."

I apologise for giving you so much verbiage before the pictures. Many of the principles I shall speak of in connection with grafting are very similar to the principles which are good for the application of plates. For example, here you see how unsatisfactory it is to put a small graft into a fracture without fixation.

Here is a cat's tibia, showing a small graft tied by catgut at each end. You see there is good fibrous union, but the graft itself shows absolutely no vitality, and it would not have any chance of restoring bone if the animal had been kept alive long enough.

Here, as a contrast, is a graft, securely fixed. So the point I iterated and reiterated so often yesterday applies, too, to grafting: there must be efficient fixation of your graft, and it is much more important here, even than with plates.

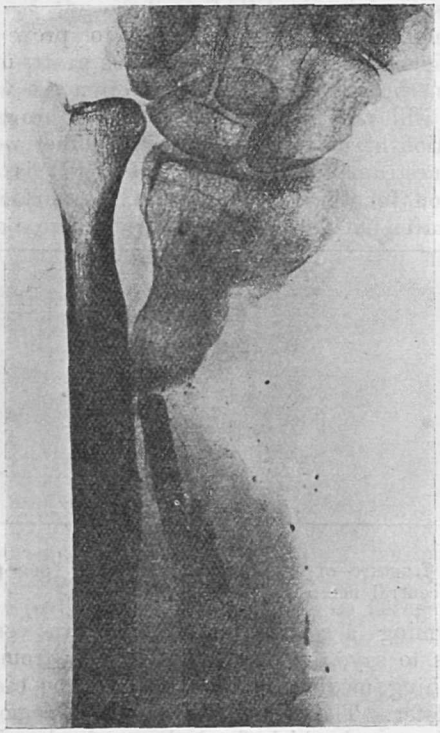


FIG. 18 (*a*).

Inefficient method of bone grafting. A small piece of tibia has been laid into the gap of the radius without fixation or contact with healthy bone.

I have already mentioned to you the question of the relative value of dead and living grafts; these pictures show the two legs of the same animal, in one of which the fresh autogenous living graft has been put, and in the other of which a similar piece of bone, taken at the same time, but boiled for 10 or 15 minutes to make it dead bone, was put in. The animal was killed six weeks afterwards, and you see it is almost impossible to say which is the better result. Perhaps the actual union between the dead and the living bone is not so good *here* as it is *there*, and perhaps the dead bone has acted a little more as an irritant than has the living; and there is a little more callus. But it is one of the greatest surprises of experimental work to see how, given favourable circumstances, a piece of so-called dead bone is rapidly incorporated in the living skeleton. But one point is essential under ordinary circumstances, and that is, that the piece of dead graft must everywhere, in its entire length at

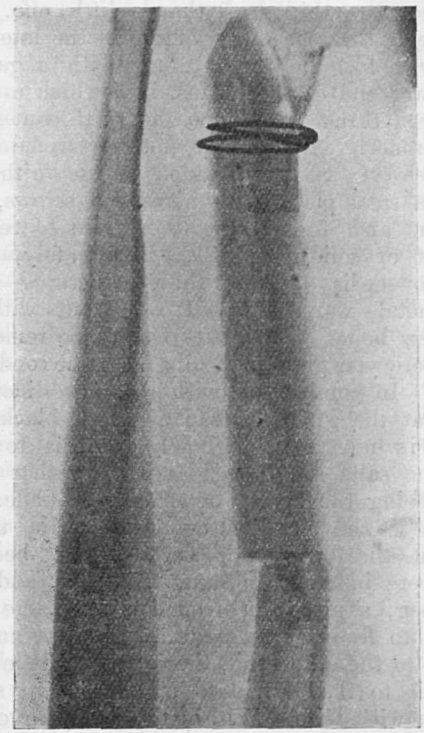


FIG. 18 (*b*).

The same case treated by an efficient bone-graft.

any rate, be in contact with healthy living bone. In other words, you cannot span a gap with a piece of dead graft; or if you do, the two ends of dead bone, where it is in contact with living bone, become vascularised and incorporated in the skeleton, and the intermediate bit in the gap ulcerates off in time and forms a piece of loose bone. That gives you a clue to the simple distinction between two types of graft for use. But for pegging the neck of the femur, where the graft will be entirely in contact with living bone, a piece of dead graft

acts almost, if not quite, as well. Whereas whenever you have a gap to be covered, or any conditions where the graft lies dependent on its own osteogenetic resources, it is necessary to have a living graft.

I come now to speak, from clinical evidence, of some of the general principles of the actual grafting. My first point—which again will rather remind you of what I said about plates—concerns the little and the big graft. If it was true to say it is far easier and safer to use a big plate than a little one, it is much more true to say that it is much easier and safer to use a big graft than a little one.

Here is the case of an officer in the late war, shortly before he came to me with a gap in the lower end of the radius, into which a graft had been thrust with hope and faith, but without contact! And it was not felt to be quite satisfactory. So that, added to the faith and hope, a steel plate, with wires and screws, was put in, and for a time there was a certain amount of solidity added. Fortunately, there was no sepsis, and all those structures—graft and metal—were tolerated well, but with no real new bone. The plates had to be removed, and there you get practically the same condition again. In comparison with the first slide, notice that the graft, instead of being black and dense, is now rather ghostly, that is to say. its bone salts are being absorbed, rather than there being the laying down of new bone.

This is the type of operation I did there, cut out the bone ends very widely, because they were indolent and unsatisfactory, and put in a peg, a piece cut from his tibia, one end shaped to fit into the medullary cavity, and in regard to the other end, there was so little bone to fit it to that I had to make a blunt spike and fix with wire. Within the last year or so, several years after the original operation, this picture was taken.

I told you there was a good deal of difference of opinion as to whether the so-called autogenous living graft really does live ,and and I admit it is an extraordinarily difficult thing to absolutely prove. I would say that it does live, and I base my assertion on three series of facts, two of which I shall illustrate, and of the other there have been many illustrations published.

The first is, that it is not at all uncommon for a graft to fracture, particularly when it is a long graft. And in cases in which a graft fractures, the middle portion of the graft furthest away from its host bone becomes united by callus, and it is very difficult to avoid the conclusion that that callus is the product of the graft itself. That can easily be done experimentally, but it can also be seen many times in clinical surgery. Another point, which I shall give you in a moment, is the behaviour of the massive graft, particularly in young subjects.

The third point is one which, as far as I know, has not been pointed out by other workers. I was fortunate enough to get one or two remarkable specimens of it lately. *This* is a series showing that.

The third fact which goes to prove the inherent vitality of the autogenous graft, under certain conditions, is, that very often the whole graft will not live, and it actually throws off a portion of its own substance; in other words, a sequestrum occurs in the graft. It is very common for this to happen on the surface of the graft; but *here* is an instance where a graft

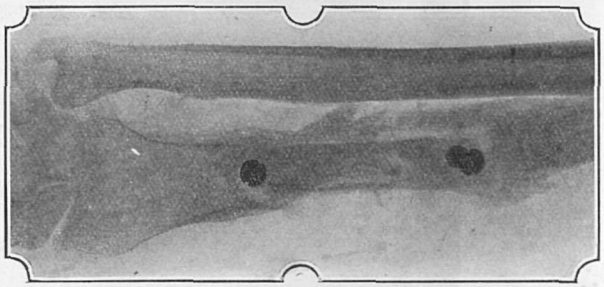


FIG. 19.

Gap fracture of radius; the repairing bone graft shows central necrosis.

is forming a sequestrum in its own centre, that is to say, the part furthest away from the nourishing medium. *Here* is the same case a little later. The sequestrum has been removed, and the metal which fixed the grafts has been removed, and it is forming a comparatively thick bone. I know great things have been predicted for the periosteal flap; well, I am very sceptical about these things having been accomplished. I have tried frequently, and I have ,so far, always been disappointed. Sometimes you get a little result, and *this* shows you the kind of result you may get. We turned down a piece of periosteum with the underlying bone, and from this upper end we swung it over and sewed it there. You see a little slender bridge of bone, and at both ends a clear space showing, at those two points, bone is being absorbed and not laid down.

Therefore, from a practical point of view, it is futile.

Here is another fracture, one of the lower end of the radius; you can see, from *this* point to *that* point, a piece of bone has been cut out from the already rather slender shaft, and it has been slid along there to bridge the gap. But when the patient came for treatment, the graft was being absorbed, and there was non-union at both points of contact between the graft and the host bone.

I have shown you *this* already in relation to some of the faults of plating, and I merely bring it in now as introductory to the subject of the use of the autogenous graft as an intramedullary splint. A piece was taken from the man's own tibia, and one end was split and the graft put inside it, and it was driven down into the other end. The graft was fixed in its place by two transfixing ivory nails, and you see, in 12 or 18 months' time, how completely the living autogenous graft has become part and parcel of the original bone, and how perfectly the bone form has been restored.

I spoke then of the cricket-bail graft. This is an intra-medullary graft which is particularly shaped for the purpose of filling up accurately a gap in a bone. *This* was a fracture of the radius; and the first thing in every grafting operation for an old ununited fracture is, to remove freely the ends of the bone which have to be mended. The necessity for that, of course, consists in the fact that the cause of non-union, whatever it may be, always eventuates in the two ends of the bone being avascularised and sclerosed; and it is absolutely futile to expect that any kind of union will take place in an old ununited fracture unless that sclerosed bone is dealt with, either by removal, which is the best thing, or by such a very thorough breaking up, comminutions, drillings, or cuttings, as to allow the healthy bone cells to sprout out through the crevices made. However small the gap may be, you are much more likely to succeed in uniting the old ununited fracture if you cut away freely the sclerosed bone ends, because it is just as easy to make and shape (within limits) a big bone graft as it is a small one. The graft is taken, if possible, of the same diameter as that of the bone it is intended to replace. Its two ends are reduced in diameter by a little dowelling machine with holes in it of different sizes; and one end is thrust into one end of the host bone, and the other end into the other; and, either by prizing the bone open, or by splitting this and subsequently wrapping it round with fine wire or kangaroo tendon, you make it secure.

I give you just one instance of what, perhaps, is the commonest, and, on the whole, the most satisfactory type of grafting, which is sometimes called cortical grafting. That is to say, a piece of the whole thickness of a long bone is taken, generally from the tibia, as the graft, and it is fitted into a groove cut into one of the long bones it is intended to treat. Here is a fracture of the tibia, and you see the graft; it spans the original gap, and forms both a splint and an osteo-conducting medium, and it is also a source of new bone. On the whole, as I have said, this is the type of grafting which, in cases of doubt or difficulty, is most to be relied upon. It has this great advantage over the cricket-bail type of graft, that you do not have to work the graft so much, that is to say, you do not have to cut it about, and you can make it of practically any length you like. Therefore the contact between the graft and the healthy parts of the host bone is very much larger than in the intramedullary cricket-bail graft. And it does not require quite so much practice and carpentering dexterity. A groove can be cut in the host bone, and the contact between the host and the graft will be so wide, that even comparatively crude lashing of the graft in its place by encircling ligatures of catgut or kangaroo tendon will usually ensure a very satisfactory result.

I now come to speak of another subject, namely, the replacing of gaps made by disease. This is a subject which, probably, you are familiar with, because many cases were published before the War in regard to osteomyelitis.

This is from the leg of a child who had lost the greater part of the diaphysis of the tibia owing to osteomyelitis. And I might say, in passing, that it is a most dangerous thing, in the early stages of acute osteo-myelitis, to remove a large part of the diaphysis of the bone. If you leave the diaphysis in place, and freely drain the osteo-myelitis, then after a month, or a longer period, you can remove the diaphysis, and you can be certain that an involucrum will form. If you cut the diaphysis out in the first instance, with the idea that the periosteal envelope you leave behind will reform bone, you will probably suffer grievous

disappointment, as in a case like *this*, which, I venture to predict, is what will await anybody who believes all the stories about the periosteum which we used to be taught.

This was a year later. I took a massive graft from the opposite tibia and put it in. And in children you do get, undoubtedly, such an extraordinarily rapid growth, both in length and thickness, of the graft, or certainly in the thickness, that it is impossible to resist the conclusion that the graft itself is acting as a living and growing thing. I ought, perhaps, to correct myself on one point. A graft, of course, never grows in length, because it has no epiphysial line, but the grafted bone does grow in length, and that is why, in these cases, it is so important to put in a massive graft as soon as it is safe to do so, because the epiphysial lines at the two ends of the bone have ceased to grow, not because they are dead or have lost their blood supply, but because they have lost the natural stimulus of the thrust of the body weight, which, normally, is necessary to make a bone grow. Put in your graft, and the thrust is re-supplied to the epiphysial line, and the grafted bone grows. I remind you, therefore, that this is the third kind of fact which goes to prove that, under favourable circumstances, the autogenous bone is a source of new bone, the first fact being that the fractured graft heals by callus, the second fact being that under certain circumstances it partly lives and partly dies. And sometimes you can show the central portion of the graft is thrown off as a sequestrum, and it is difficult to imagine that occurring except as a result of inherent vitality. And thirdly, especially in children, in whom the conditions are all in favour of growth, a massive graft does so rapidly show growth in thickness that the supposition is that it aids in the new bone formation. You may possibly be surprised at my thinking it is worth while to stress this point; but it is necessary, because while I have stressed it I must also remind you that when you are working with adults and under unfavourable conditions, it is very frequently the case that the living autogenous graft acts, for all the world, like a piece of dead bone ; and in nine cases out of ten in which bone grafting is done in the adult, the final result depends on new bone laid down by the host, and not by the graft.

This is the same case as the last; it shows the epiphysial line at each end, and these curious little lines of growth, which you constantly see in children's bones, showing, in regard to its breadth, that massive graft has almost reproduced a new bone.

I come now to rather a small by-path, so to speak, which I am illustrating in the forearm bones, but which could be equally well illustrated in the parallel bones of the leg. In spite of the successes I have shown, it still happens that cases occur in which one or more attempts at healing by grafting them failed. In the case of the lower limb, and in adults, the patient usually, and, I think, wisely, after one or two attempts have been made, prefers to take the short-cut of amputation. But even in the lower limb, instead of doing that comparatively complicated operation I have just shown you, the fibula of the same leg may be transferred to the line of the tibia, transferring one end at a time. That is fairly well known, and I need not dwell upon it. What is not so well recognised—I am not aware it has been described elsewhere—is the same type of operation in the forearm. *This* was from a patient in whom several unsuccessful attempts have been made, and I was responsible for most of them, so I must not criticise their methods. But in many of the cases of gunshot injuries, defects are very great, and so are the difficulties. The man had a very distorted arm, with a gap in the radius. Here is a photograph of his arm, which was in that horrible position, and the man himself declined to have any more grafting done. And the problem was, what could we do with it? What I decided on was to ignore the upper end of the radius altogether, and simply take the ulna, cut off that ugly projecting lower end, and implant the lower end of the shaft of the ulna into the lower end of the radius ; that is to say, make one good bone out of two bad ones. That shows you a good strong arm, and rectification of the deformity.

I have left myself a very short time for describing what is an extremely interesting branch of my subject, the application of bone grafting to the filling of defects made by new growths ; and I must confine myself here to just illustrating my remarks.

Here is a skiagram of a spontaneous fracture in a lady of 60; and you would have very little difficulty in making the diagnosis that that is probably a malignant new growth. It turned out to be a small round-celled sarcoma, the prognosis of which is almost hope-

less. So I doubt whether it is worth while proposing amputation. We had to cut down upon it to get something for microscopical examination, and—what I do think was worth while—instead of simply cutting out that bit of bone and leaving the woman with a flail-like, painful arm for the few months of life in throwing a cricket ball. It healed once, and then it fractured again, with less violence. The X-rays show a typical cystic condition. Operation necessitated resection of that piece of humerus. The specimen is in the College of Surgeons Museum. I am aware of the fact that by careful splinting, the bone being young

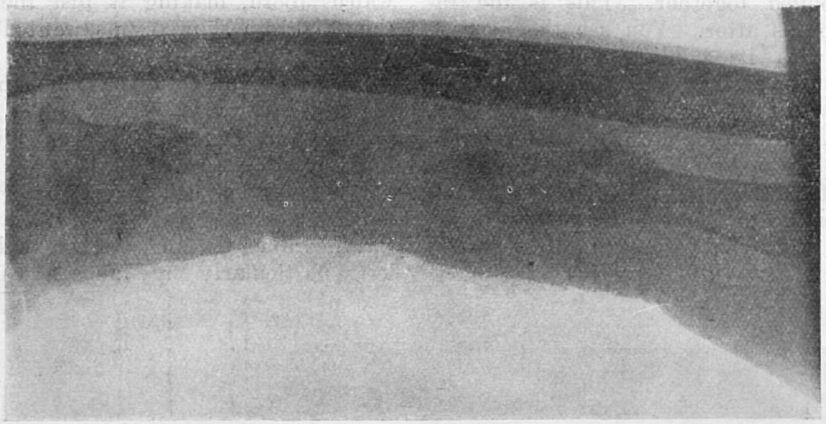


FIG. 20 (*a*).
Case of gap-fracture of radius in which grafting had twice failed.

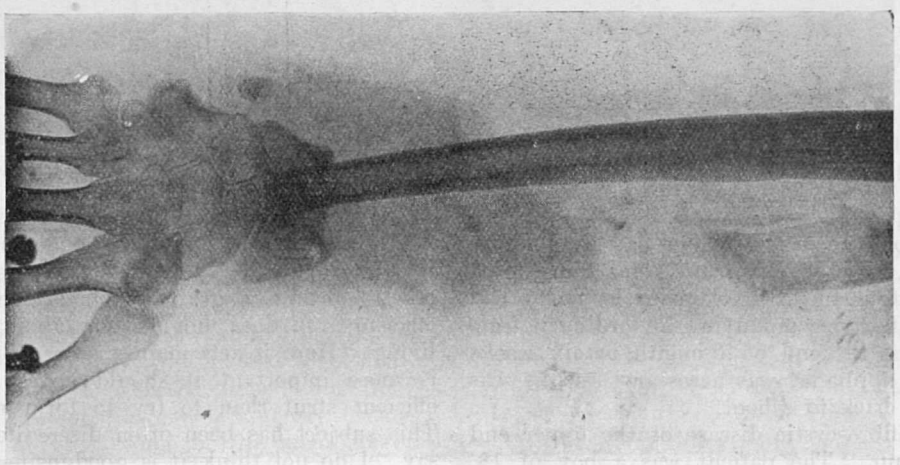


FIG. 20 (*b*)
The same after transplanting the cut shaft of ulna into the distal portion of radius.

she had left, to put in a bone peg and fix it. And she is content, for the ununited fracture is substituted by a firm and useful arm.

Here is a much more hopeful subject: fibro-cystic disease. Here is the humerus of a boy 12 years of age. He fractured his humerus and the periosteum firm, a good bridge could grow from one end to the other, and regeneration of the bone would have occurred; but I claim that by intelligent use of the graft you can practically eliminate all the long, tedious and anxious period of having a flail arm.

This was done by shaping two grafts out of a piece of ox bone, one end of the graft fitting into the proximal, the other into the distal end of the bone, and the two grafts fitting together with bolt-holes in them, a simple operation after the disease had been cut out. Half of the graft was nailed up into *this* part of the humerus, half into *this*, and the two parts were bolted together. This is the result three months after. You see the massive dead graft, with its holding bolts, and the periosteum is conducting the new bone down from one end to the other. *Here* you see, a year after, how complete the re-formation of the bone is. At one end it is clear that the original foreign graft is being substituted by human bone; but at the other end it looks as if it had been encapsuled in a shell of human bone. The original ox bone is intact.

the fibro-cystic disease, however innocent may be the nature of the disease, the man is left with a femur like an egg-shell, which will surely collapse. Exposing the femur from behind, I scooped it out; it came out easily, like a definite tumour leaving its shell. Then I turned up a trap-door. I had previously prepared a piece of ivory, which came from a walrus tooth, making it just the shape which the skiagram showed was wanted. I was able to push this in, lifting up the edge of this thin bone; and you see the condition twelve months afterwards. Here is the mass of walrus tooth in the leg, and the new bone forming round it ; and, except for the precautionary measure of wearing a caliper splint for a month or two, he has had no disability. Therefore in filling up bone cavities which have been left, particularly by innocent tumours, it is

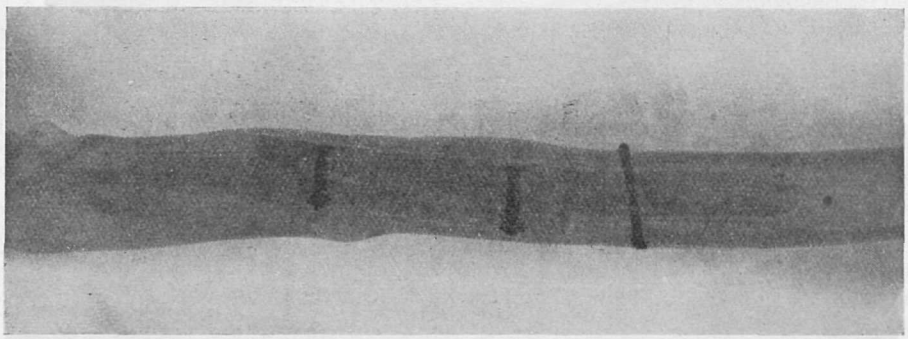


FIG. 21

But that boy never for a day had a functionless arm. For safety, we kept him on a splint for four to six weeks, but he never had the discomfort accompanying an ordinary fracture, and at the end of a month or six weeks no further appliance was necessary, and he was able to go back to school.

Here is fibro-cystic disease of the upper end of the femur. The patient was a boy of 18, who complained of nothing but pain in his thigh. He narrowly escaped being sent home with merely a bottle of liniment, with the idea that it was a case of rheumatics. Fortunately. he was X-rayed, and we found this characteristic transparency at the upper end of the femur.

Now, given the diagnosis, what will you do? There is little bone there, and if you scoop out

worth while to fill up with a bone graft. And it is important, if you are to secure the best result, to get a graft which is mechanically efficient ; it does not matter about it being living. Here it acts mainly as a strut ; and it is more important it should act as a strong efficient strut than to try to form new bone. This subject has been often discredited; people say "I do not think it is good using grafts in bones"; they pick off little chips from the crest of the ilium, or from the tibia, chop it into little bits, and push it into the cavity. Those bits tumble about like dry peas in a pod and are of no use. Take a piece of properly prepared and strong graft made previously from ox bone or from ivory, and then you will get a result which is worth while.

The Elementary Principles of Zoological Nomenclature.*

By Brevet Lieutenant-Colonel W. P, MacArthur
(Royal Army Medical Corps.)

THESE notes on zoological nomenclature do not concern those who have had the advantage of systematic instruction in any branch of medical zoology and who consequently are familiar with the principles involved. Some medical officers, however, find it necessary or advantageous to employ scientific names of insects, worms, or more lowly animals, in the course of their work, and having no clear idea of the significance of the names they use, nor of the reasons for their adoption, they feel bewildered by the whole subject. At the request of several officers who have found themselves in such a situation, I have written this article in the hope of assisting them, and perhaps others similarly placed. I hasten to add that I do not pose as an authority on zoological nomenclature, having studied the subject no more deeply than has proved necessary for everyday work. It seems strange that a matter which amply repays consideration should so often be neglecetd. Many men who make no claim to be chemists, for instance, would feel disconcerted and ashamed if detected in the misuse of a formula, or in some other chemical solecism. Yet they continue to maltreat zoological terminology in a harrowing fashion, without a qualm—nomenclature is a knavish business, but we who have free souls it touches us not! Teachers in hospital wards and out-patient departments are often to blame for this distressing state of affairs, for their lectures on conditions due to parasites rarely include any explanation of the system of nomenclature, and indeed they themselves often employ incorrect names which their unfortunate students have subsequently to unlearn. I found that some of the members of a recent class of instruction had never heard of crab lice and itch mites during their medical training except under the names "*Pediculus*" *pubis* and "*Acarus*" *scabiei* respectively. When they were constrained to acquire the correct nomenclature of these parasites there was some good-natured grumbling about "the continual changing of names." Now since the crab louse was placed in the genus *Phthirus* by Leach in the year 1815, and the genus *Sarcoptes* was founded by Latreille in 1806, any justifiable complaint of inconvience from these alterations lay not with the members of the of the class, but with their great-grandfathers. Writers of textbooks of medicine and of hygiene are also often culpably careless in their use of names. For example, how often do we see the worm causing trichinosis described as "*Trichina*" *spiralis*, although this generic term was rejected long ago.

Medical men often complain bitterly of the alteration of zoological names—and certainly some workers propose changes for reasons that seem strained and inadequate—but much of the trouble experienced by medical men in this respect is due to our retention and perpetuation of names which are long dead and should have been decently buried years ago.

The present scientific binominal nomenclature was inaugurated by Linnæus, of glorious, pious and immortal memory, in his *Philosophia Botanica*, published in 1751, but this method was not systematically introduced for the animal kingdom until 1758 when the same author published the famous Tenth Edition of the *Systema Naturæ*. For many years Linnæus' rules sufficed for all requirements, but more modern thought and the advancement of science led to various attempts to modify and improve them. Thus Strickland's Rules were drawn up in 1842—43 by a Commission which included Darwin amongst its members. The Zoological Society of France issued a code in 1881; the German Zoological Society did likewise some years later; and other series of rules were formulated in America and elsewhere. These amplifications of the Linnæan system, however excellent in themselves, were open to grave objection, for most embraced only a portion of the zoological range, and above all, none of them had any international status. To cope with a state of affairs already unsatisfactory and threatening to become worse, Professor Blanchard submitted a report to the First International Congress of Zoology held

*Reprinted, by kind permission, from the *Journal of the Royal Army Medical Corps*, December, 1922.

at Paris in 1889, in which he advocated the adoption of a suggested international code. The question was debated again at the Second Congress at Moscow in 1892, when Blanchard's proposed code was adopted with little alteration as the International Rules of Zoological Nomenclature. The Third Congress at Leyden in 1895 nominated an International Commission on Zoological Nomenclature, and the Fourth Congress at Cambridge in 1898 made this International Commission a permanent body. Official copies of the Code were prepared in French, English, and German, but in the event of any discrepancy in meaning, or any variation in the texts, the French version is to be taken as authoritative. Any proposed amendment to the Rules has to be notified to the Commission on Nomenclature one year before the International Congress assembles. Therefore our employment of a zoological name, whether that of a prehistoric monster or that of a malaria parasite, is controlled and guided by the International Rules, and the Recommendations under the Articles; the Appendix to the Code; and a series of Opinions pronounced by the learned International Commission for guidance in interpretation of the Rules. All this sounds very formidable, but, as a matter of fact, what most of us require to know on the subject can be learned easily in half an hour.

Before dealing with any of the actual rules, it might be well to touch on some elementary points explanatory of the method of classification adopted for animals. To take the common fly, *Musca domestica*, as an example. All individuals included within the conception expressed by this term resemble one another in every specific point, other than such differences as are due to sex and to slight individual variation. Under suitable conditions these flies will breed and produce fertile offspring. Consequently they are regarded as constituting a species, *M. domestica*. Now, when on a country jaunt on a warm day in England, we may be worried by the attentions of flies resembling *M. domestica* very closely, but more careful examination demonstrates constant differences between them. A comparison of the heads of the males, for instance, shows that the male *M. domestica* has a distinct space between the eyes, whereas the eyes of the male of the other fly are in close apposition. This, taken together with other constant differences, shows that we are dealing with a different species, in this case *Musca autumnalis*. But these two species, together with others, have in common the same wing venation, the same arrangement of certain bristles, etc., characters which are sufficiently distinct to be regarded as being of generic importance. So the species showing them are grouped together to form a genus, *Musca*. From this it is evident that the designation of a species consists of two parts, the name of the genus to which it belongs, combined with its own specific name. To proceed further, if the genus *Musca* is compared with the genus *Glossina* (tsetse flies), with *Stomoxys*, etc., these genera are found to have certain features in common, and so all which show these characters are grouped together in a Family—MUSCIDÆ. By a similar method the MUSCIDÆ are combined with other related families to form an Order—DIPTERA, and the DIPTERA are joined with other Orders (Fleas, Bugs, Lice, etc.), to form a class, INSECTA. The INSECTA, together with the ARACHNIDA (Ticks and Spiders), and certain other classes, constitute the Phylum, ARTHROPODA, other phyla of medical interest, built up by similar grouping, being the parasitic Flat worms, parasitic Round worms, Snails, etc. And this pedigree carried back still further will ultimately join up with that of the more lowly animals, the Protozoa, the final assemblage constituting the animal kingdom.

For convenience in classification, divisions intermediate between these may sometimes be recognised—Suborders, Subfamilies, Subgenera, etc., and the individuals of a species, especially one which is large and widespread, may show small constant differences indicative of racial varieties or Subspecies.

We may now consider the rules of nomenclature so far as they concern us.

Article 2.—"The scientific designation of animals is uninominal for subgenera and all higher groups, binominal for species, and trinominal for subspecies."

Thus, human head and body lice belong to the genus *Pediculus*, the species is *Pediculus humanus*, and if desired to go further and contrast the two subspecies, or racial varieties, a trinominal designation is necessary, *e.g.*, *Pediculus humanus corporis*. (Article 17 directs also that when a subspecific name is cited it is to be written directly after the specific name without the interposition of any mark of punctuation.)

Article 3.—"The scientific names of animals must be words which are either Latin or Latinised."

Various directions are given in the body of the Code and in the Appendix for the Latinising of barbarous and Greek words. For instance, the Greek terminal *os* has to become *us*, so that the name of the well-known genus of ticks is correctly rendered *Ornithodorus*. There is no objection to the terminal Greek *a*, therefore it is unnecessary to Latinise the common *-stoma* to *-stomum*.

Article 4.—"The name of a family is formed by adding the ending *idæ*, the name of a subfamily by adding *inæ*, to the stem of the name of the type genus."

Thus from *Culex*, the type genus of the mosquito family, we have CULICINÆ and CULICIDÆ. The name commonly employed for the subfamily (or family), of the "soft" ticks is not in accordance with the foregoing article. The type genus is *Argas*, and since the stem of the Latinised *argas* (= shining) is *argant*, the subfamily should be ARGANTINÆ not ARGASINÆ.

Article 8.—"A generic name must consist of a single word, simple or compound, written with an initial capital letter, and employed as a substantive in the nominative singular."

Article 10.—"When it is desired to cite the name of a subgenus, this name is to be placed in parenthesis between the generic and specific names."

The author of a widely-used text-book of medicine writes the name of the itch-mite "*Sarcoptes* (*Acarus*) *scabiei*." Obviously he interposes "*Acarus*," lest any of his readers should fail to recognise the parasite under its correct name, but the meaning of the combination is far removed from what is intended. It must be interpreted as a division of the genus *Sarcoptes* into several subgenera, and in one of these (*Acarus*) the itch-mite is placed.

Article 13.—"While specific substantive names derived from names of persons may be written with a capital initial letter, all other specific names are to be written with a small initial letter."

Often advantage is not taken of the permission accorded in the first portion of this Article, for confusion has resulted between a personal specific name written with an initial capital and the name of the author. The specific term in *Filaria bancrofti*, for example, could be written with an initial capital, but it is desirable to use a small letter for the sake of uniformity, and to avoid possible confusion, especially when the names of Italian authors are cited.

Article 19.—Under this article there is the Recommendation: "For scientific names it is advisable to use some other type than that used for the text." As an illustration, an extract follows in ordinary print with the name of a species in italics, the name of the author being cited in roman type. Usually the names of groups higher than genera are not italicised, roman type being employed.

Article 22.—"If it is desired to cite the author's name this should follow the scientific name without interposition of any mark of punctuation; if other citations are desirable (date, etc.), these follow after the author's name, but are separated from it by a comma or by parenthesis."

Article 23.—"When a species is transferred to another than the original genus, or the specific name is combined with any other generic name than that with which it was originally published, the name of the author of the specific name is retained in the notation, but placed in parenthesis. If it is desired to cite the author of the new combination his name follows the parenthesis."

Pediculus humanus Linnæus, 1758, can be taken as an example under Article 22. Whereas (Article 23), *Phthirus pubis* (Linnæus, 1785) Leach, 1815, shows that Linnæus named this species, but placed it in a different genus (*Pediculus*), from which it was removed to its present genus by Leach.

Article 25.—"The valid name of a genus or species can be only that name under which it was first designated on the condition:—

"(*a*) That the name was published and accompanied by an indication, or a definition, or a description.

"(*b*) That the author has applied the principles of binary nomenclature."

This is the all-important Law of Priority. As an example of its application, is *Bilharzia* or *Schistosoma* the correct generic name of the human blood fluke originally described by Bilharz as *Distomum hæmatobium*, but subsequently placed in another genus, variously designated by the above names? As Weinland named this genus *Schistosoma* in 1858, and Cobbold named it *Bilharzia* in 1859 (both names complying with the conditions of Ar-

ticle 25), the latter must be rejected under the Law of Priority, and the valid name of the parasite is accordingly *Schistosoma hæmatobium* (Bilharz, 1852). Of course, if it were desired to cite the genus only, this would be *Schistosoma* Weinland, 1858.

Article 26.—"The tenth edition of Linné's[1] 'Systema Naturæ' 1758, is the work which inaugurated the constant general application of the binary nomenclature in Zoology. The date, 1758, therefore is accepted as the starting point of Zoological nomenclature and of the Law of Priority."

Article 32.—"A generic or a specific name, once published, cannot be rejected, even by its author, because of inappropriateness."

This article prevents the alteration of a name based on some character supposed to be peculiar to the individual or group named, but which is subsequently shown not to be thus limited. The species *Necator americanus* (Stiles), was so called from its supposed restriction to America. The validity of the name is not affected by the discovery that the species is widely distributed in the Old World.

Article 34.—"A generic name is to be rejected as a homonym[2] when it has previously been used for some other genus of animals."

Owen in 1835 founded a genus *Trichina* for the parasitic worm which causes trichinosis. This name was rejected, as it had been applied to a genus of insects by Meigen in 1830. Subsequently Owen's genus was named *Trichinella*.

Article 35.—"A specific name is to be rejected as a homonym when it has been previously used for some other species of the same genus."

It will be noted from the preceding two articles that a generic name once promulgated is preoccupied as regards the whole animal kingdom, whereas a specific name is preoccupied only so far as its own genus is concerned. The zoological name of the parasite of quartan malaria is *Plasmodium malariæ*. Now Grassi and Feletti, who described the parasite of malignant malaria at a later date, placed it in a different genus under the name *Laverania malariæ*. Some protozoologists hold that the characters of the malignant parasite are not sufficiently differentiated to justify its inclusion in another genus (*Laverania*). If this view obtains, the parasite must be allocated to the genus *Plasmodium* where its specific term cannot be *malariæ* as this is preoccupied for the quartan parasite. Therefore the malignant parasite assumes the name, *P. falciparum*.

Two other articles, though less important than the foregoing, are of sufficient interest to be mentioned.

Article 14, *Section C*.—"If the name is a modern patronymic the genitive is always formed by adding to the exact and complete name an *i* if the person is a man, or an *æ* if the person is a woman.

Article 19.—"The original orthography of a name is to be preserved unless an error of transcription, a *lapsus calami*, or a typographical error is evident."

The interpretation of these two Articles has led to difference of opinion regarding the correct termination of personal specific names, *e.g.*, *Anopheles rossii*, or *A. rossi*. At first glance it might appear obvious that "*rossii*" was not permissable under Article 14, but the author of the name cited evidently considered that an English, or rather a Celtic, patronymic should itself be Latinised before receiving the addition of a Latin ending. This would give "Rossius" of which Rossii would be the genitive. A case of this nature was submitted to the Commission for a ruling, and they took the view of the question given above. Their finding is set out in Opinion 8, where they advise that names having the double i originally should remain unchanged, but that new formations should have only the single vowel added to the *exact* name. As the species taken as an example was named *rossii* by its author in 1899, and Opinion 8 was not published until 1910, the original form of the name is correct.

It will be apparent from the examples quoted that the validity of a specific name is unaltered by any fate which may befall the genus to which it was first assigned. This original genus may be contracted or enlarged, or it may even disappear altogether if subsequent knowledge shows it was founded on false or insufficient characters. Unfortunately in the case of some of the older species, there is difficulty in determining finally the correct specific name, for forgotten descriptions and designations may come to light and necessitate the abandonment of old and widely accepted terminology. The nomenclature of the yellow

[1] Linnæus.

[2] A homonym is one name for two or more things; a synonym more than one name for the same thing.

fever mosquito is a case in point and fills the uninitiated with bewilderment. Three generic terms—*Aëdes, Aëdes (Stegomyia),* and *Stegomyia*—may be encountered, and any of these may be combined with one of three specific names—*fasciatus, calopus* and *argenteus*. First, as regards the generic term. To the earlier zoologists, the genus *Culex* was commensurate with the whole mosquito family, and consequently this insect first appears under this name. Though the domain of *Culex* was gradually encroached on by the establishment of other genera of mosquitoes, the species under discussion was not removed until Theobald founded his genus Stegomyia in 1901, the chief characters for this being the flat scales on the head and scutellum. Many of Theobald's proposed genera have fallen under the blows and buffets of later workers, and most authorities now hold that *Stegomyia* also is not sufficiently demarcated to retain generic rank, but should be merged in the reconstructed genus, *Aëdes.* Some discard the term *Stegomyia* entirely, while others retain it, enlarged from Theobald's original idea, to label one of a number of natural groups or subgenera into which *Aëdes* can be divided. Consequently the generic conception which includes this species can be expressed as *Aëdes, Aëdes (Stegomyia),* or *Stegomyia,* according to the view adopted by the user.

Next as regards the specific terms. Until recently the earliest known names for this mosquito were *Culex fasciatus* Fabricius, 1805, and *Culex calopus* Meigen, 1818. The former of these was accepted as the valid name and its adoption by Theobald in the form of *Stegomyia fasciata* familiarised it to all. Objection was made, however, that the name *fasciatus* had been preoccupied and so was not available when Fabricius adopted it, and consequently the yellow fever mosquito ought to be called *calopus,* the next name in sequence. A number of people accepted this view and *calopus* is often seen, especially in American literature. Now the mosquito named *fasciatus* by Müller in 1764 has been doubtfully identified as *Culex pipiens* Linnæus, and if the identification is correct, this species having been named *pipiens* by Linnæus in 1758 could not be called *fasciatus* by Müller in 1764; therefore the latter name was unoccupied and available for Fabricius. On the other hand, if Müller's *fasciatus* cannot be identified, the validity of Fabricius' name is unaffected, for a name must be attached to some entity and not to an intellectual abstraction, so that so far as this objection is concerned, the yellow fever mosquito is correctly called *fasciatus.* Recently, however, a description has been discovered of a mosquito named *Culex argenteus* by the Abbé Poiret in 1787. As the identification of this species is of great importance I have abstracted his description from the original publication.

"*Culex argenteus, dorsum squamis argenteis exornatum, pedibus jasciatis.*" After a few words concerning the fate of his specimens, he continues: "*C'est le cousin le plus commun en Barbarie. Il est de la grosseur du nôtre mais si richment paré que le lui ai souvent pardonné ses piquûres pour le plaisir de l'admirer. Tout son corps, particulièrement le dos, est couvert d'écailles argentees, placées sur lui comme autant de paillettes orbiculaires et brillantes. Ses pattes sont ornées de bandes alternatives brunes et argentées.*"

("*Culex argenteus,* the back ornamented with silver scales, feet banded, . . This is the most common gnat in Barbary. It is of the size of our own, but so richly adorned that I have often forgiven its bites for the pleasure of admiring it. All its body, particularly the back, is covered with silver scales placed on it like so many orbicular and brilliant spangles. Its feet are ornamented with bands alternately brown and silver.")

If this description, obviously very imperfect, is considered in its entirety there can be no doubt that the Abbé was dealing with "*S. fasciata.*" *C. argenteus* was clearly a brightly marked mosquito, and the commonest in Barbary. *A. (S.) vittatus* (Bigot) is excluded by the description, besides which it has been reported from the Palæarctic region apparently on one occasion only, and then in Corsica. Only two specimens of *A. (S.) cretinus* Edwards are recorded by its describer, both from Crete, and Mr. Edwards tells me that neither of these species has ever been reported from "Barbary." Consequently if Poiret's remark on the distribution of his mosquito is admitted as part of his description—and I know of nothing in the Rules to exclude it—by the Law of Priority the name *fasciatus* should lapse and be replaced by *argenteus.* Some may object that remarks on distribution and habits are inadmissible as a definition of a species. If this be so, then many of our oldest and universally accepted zoological names ought to disappear. It would be impossible to determine the species named *Pediculus humanus* and

Musca domestica, for example, without the remarks about their respective distribution — "*Habitat in capite et vestimentis humanis,*" and "*Habitat in Europæ* domibus."

Poiret's description is very incomplete, according to our ideas, but so far is it goes it is correct, whereas Fabricius in describing his *Culex fasciatus* commits a grave error. He says, "*Caput nigrum, haustello porrecto fasciis tribus niveis*" ("Head black, with extended proboscis with three snow white bands"). It is evident that Fabricius was dealing with a damaged male, and mistook a palp for the proboscis, but his description, taken literally, could not apply to any known mosquito. I cannot see how any one could be so precise as to strain out* Poiret's gnat, and yet swallow the camel of Fabricius' triple banded proboscis. It is a pity if an old established name like *fasciatus* should have to disappear, but at present I do not see how the Abbé Poiret's specific term can be rejected, much as we should all like to see the well known *fasciatus* retained; and unfortunately, it will be long before *Aëdes (Stegomyia) argenteus* becomes a household word like *Stegomyia fasciata.* Poiret's name has been accepted by Edwards, of the British Museum, and other authorities, though there will doubtless be bitter exchange of apostolic blows and knocks before a final agreement is reached.

In cases like the foregoing, the application of the rules of nomenclature may cause inconvenience, but the more rigidly they are enforced the sooner the day will dawn when the happy student has to memorise only one name for each species. As long as the principles of nomenclature remain a mystery to us, names are necessarily employed in a haphazard and unreasoning fashion, for the selection of the term chosen cannot be justified, nor its form comprehended; and being blind ourselves, we cannot discern if those guides whom we helplessly follow are themselves gifted with vision.

* ("Strain *at* a gnat" in the Authorised Version of the Bible (1611) is a misreading for "strain *out.*" The Vulgate (384) has "*excolantes culicem,*" which Wyclif (1389) renders by "clensynge a gnatte," and Tyndale (1526) by "strayne out a gnat." The Old English "Gospels" (995), translated not from the Vulgate, but from a still earlier Latin text, have "ge drehnigeath thone gnæt áweg," i.e., "Ye drain the gnat away." The Revised Version (1881) restores Tyndale's rendering of the passage.)

REFERENCES.

(1). Edwards. *Bull. Ent. Res.*, xii, p. 324, 1921.
(2). Fabricius. "Syst. Antl.," p. 36, 1805.
(3). Linnæus. "Syst. Nat., Tenth Edition, 1758.
(4). Meigen. "Syst. Beschr.," i, p. 3, 1818.
(5). Poiret. *Journ. de Phys.*, xxx, p. 245, 1787.
(6). de Rudeval. *Reg. Int. de la Nom. Zool.*, Av.-Pro., 1905.
(7). Smith. *Inst. Publ.*, 1938, 1910.

The Residents' Play.

"What will Matron say?"

THE popularity of the Residents' Play necessitated a run of four nights owing to the large demand for tickets, and the "combined efforts of the Residents" emerged in the form of a "Midsummer Night's Dream" under the above title. The play was in four acts (eight scenes), and was so much longer than last year's that it filled the whole bill instead of having a concert for curtain-raiser. In place of this we were taken into the confidence of our entertainers at the beginning by being invited into the College to witness the composing and rehearsing of the play, the actors appearing as "their own sweet selves." There can be no doubt that the naturalness and freedom of this "pre-anæsthetic" with its varied interruptions, its exits and its entrances, caught the fancy of a crowded and critical house; indeed, many were the verdicts afterwards that these were the best scenes of the play. The action was rapid, the dialogue crisp, and the topical allusions thoroughly convincing and recognisable. We were given the atmosphere of Guy's. Many were the suggestions made for the play—mannequins, Russian ballet, rescues from fire, a fairy tale, and so forth, but we got no hint of what was finally forthcoming. True, a rehearsal of "Cinderella" was actually begun—under difficulties that would have daunted weaker men—and this was worth while if only for the fun of seeing Mr. Richards trying to satisfy Mr. O'Meara's idea of a fairy. But eventually the wards or the Ship claimed every actor but one, and to

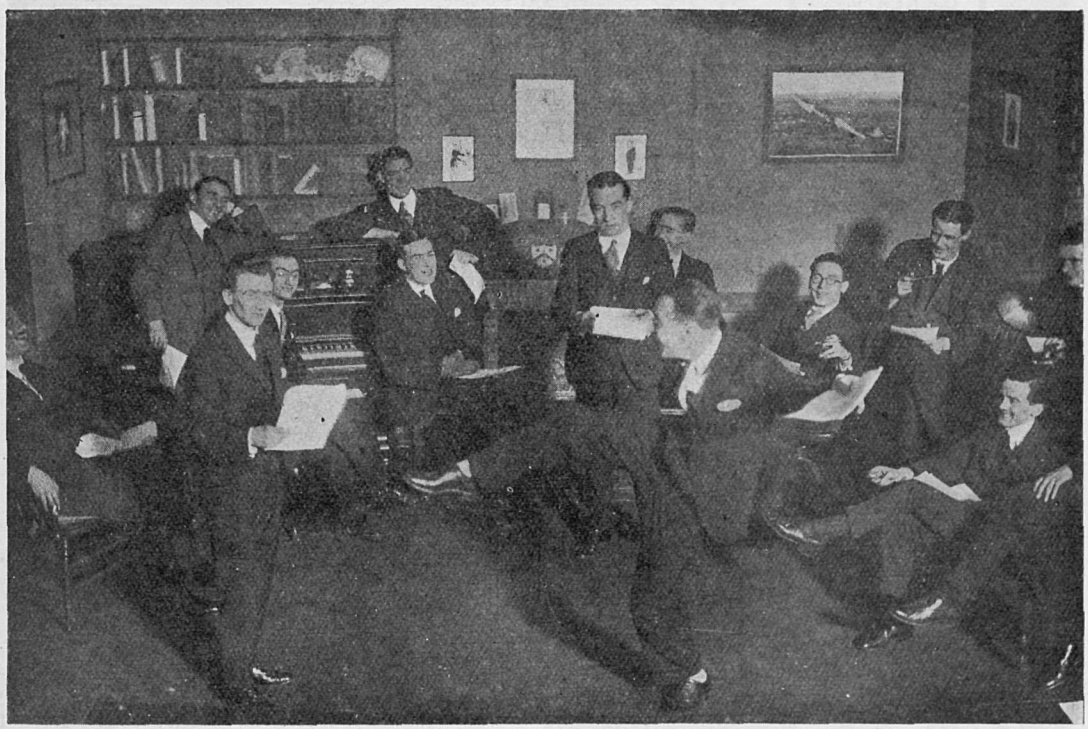
him the Muse evidently whispered, "Go on dreaming, Mr. Sheen." He did—but you shall hear.

* * * *

Of course, the social revolution was bound to invade Guy's sooner or later. We could not help recalling some lines from the unforgotten Wardmaid's Song in last year's play—

"Chaps don't notice a girl like me
When they go round the wards,
But I could mention a nurse or two
They come to see in hordes."

But that tea-party in the College (by-the-way, that tea never appeared!) was the setting for one of the brain-waves of the play. The Residents enlisted our sympathy in the first act, and it must be one of their annual perplexities to infuse some variety and novelty into the caricaturing of the Senior Staff without which no Residents' play is complete. Congratulations, then, on the loud-speaker. The calling-in of the entire staff in consultation to a single patient (1922) makes too great a strain on the action of the play. The lampooning of idiosyncrasies (real or alleged) in a song (1923) has to be very slow and delibe-



Flashlight Photo by G. A. Walker, Guy's Hospital.

But with the advent of the Labour Government the neglected wardmaid has clearly come into her own. Not only did she dominate the plot, cutting out a mere "strings" and causing paroxysms of jealousy, but she now apparently takes tea in the College in mufti, and in the dénouement turns out to be intimately related to some of the "bluest" blood in the Hospital. O tempora, o mores! What may we not expect next year if the Cabinet holds together, and Mr. Sheen goes on dreaming? Will the Governors be discovered picnicking in Tabard House?

rate if the allusions are to be caught. But listening-in to various wards while teaching is in progress (1924) proved an admirable solution. We shared with Magda the joys of a really up-to-date thrill.

* * * *

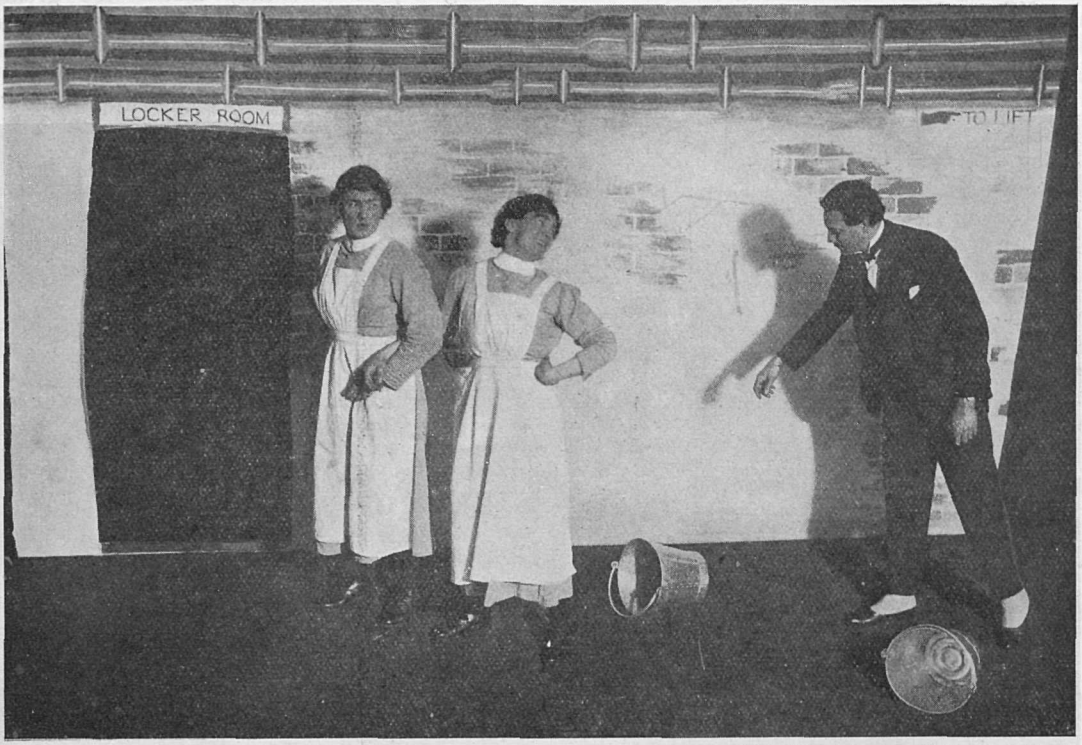
It must, too, have been no small relief to the feelings of the Staff themselves (do the Residents ever think of this?) to find themselves spared actual impersonation this year and handled with such comparative leniency. There were, however one or two exceptions made in this respect. Sir Deadly Gripp came in for

a prolonged study which was admirably executed and keenly enjoyed. It was in this scene in Faith ward that the play reached its high-water mark both in libretto and "business." Mr. Davies certainly "got it across" here, and being well supported by his firm, scored the hit of the evening. The examination tips, the special knee-bandage, above all the broom-handle story—the entire episode told; and we were all sorry when at last we lost Sir Deadly to Lady Burblehampton.

* * * *

After that the Padre, whose "lot is such a happy one"—it was cheery, by the way, to have a touch of Sullivan—proceeded to administer surprising spiritual consolation to No. 20. The President of the Residents has undoubtedly missed his vocation. Complete with notebook, to say nothing of other books, he betrayed a soothing bedside manner which will find insufficient scope in mere medical practice. Sister Faith, we are bound to say, we have never met at Guy's, not even in a dream. By way of contrast, we suppose, to his previous appearance as a fairy, Mr. Richards turned up again, somewhat the worse for wear, as the wife of No. 20, though how he succeeded in getting past the Front Lodge in his condition can only be accounted for, like several other details in this play, when we remember that it was a dream.

* * * *



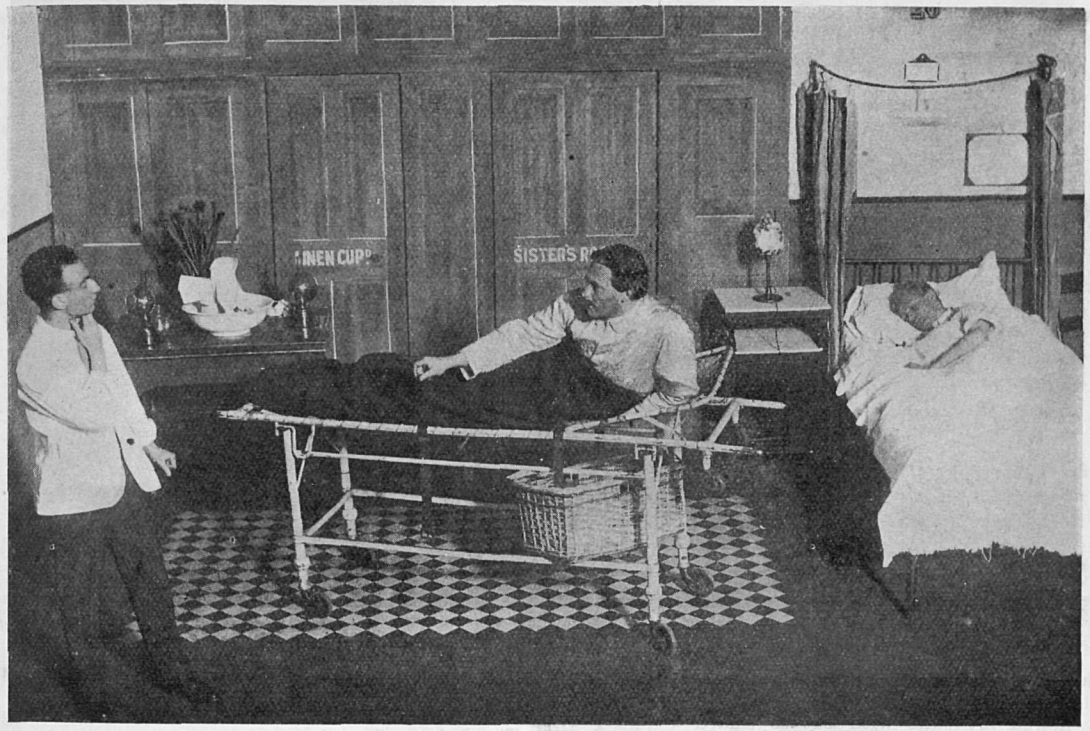
Flashlight Photo by G. A. Walker, Guy's Hospital.

It only remains to say that the scenery was excellent, and excellently contrasted. Both the murky shadows of the Subway and the green garishness of the Faith linen-cupboard were exactly right, while the miscellaneous properties and decorations of the room in the College harmonised well with the studied impromptu of the first act. Only those on whom it falls can adequately estimate the amount of time and trouble involved in this essential feature of a successful production, and amid all the improbabilities and impossibilities of "What Will Matron Say?" the scenery at all events was consistently realistic.

The Song of the H.P.

OH, many, many years ago—more than I care to tell,—
The barbers studied Surgery and practised it as well,
A man would need, say, shaving and invade a barber's shop,
And it happened, if the barber thought him getting thin on top,
He'd operate upon him, just to find out what was wrong.
He'd let out half-a-pint of blood, in case it was too strong.
And the patient and St. Peter soon would meet at Heaven's Gate,
Where a golden crown would quickly hide the baldness of his pate.

As years rolled on their instruments embraced a wider scope,
For the barber's pole, when hollow, made a good sigmoidoscope,
And the barber's lady patients, who complained of growing grey,
They at once pronounced as toxic-in the ultra-modern way.
And they operated on them, willy-nilly, there and then,
For they knew that small adhesions were the curse of modern men.
And they looked upon a patient as a pre-historic gink,
Who refused an operation to divide Lane's latest kink.



Flashlight Photo by, G. A. Walker, Guy's Hospital

Their remedies were simple then and always met the case.
If you went into a barber's to get massage for your face,
And foolhardily you licked your lips before he had begun,
Should he chance to spy a tiny little pimple on your tongue,
He'd operate upon it and, before you'd time to scoot,
He'd take a red-hot knife and burn your tongue out by the root.
They still carry on this practice here, when things are rather slack,
—If you diathermatise them well, they never answer back.

The barbers' way of treatment still at Guy's to-day abounds,
To instal electric massage cost us ninety thousand pounds;
And a patient, should he come to us with symptoms rather grave,
If the Surgeons take a like to him, he'll have a narrow shave;
For they'd operate upon him with the very least excuse,
And cut out all the parts, of which they didn't know the use.
When they'd finished with the body, they would say with modest pride,
"What a master operation!—Such a pity that he died!"

The Song of the H.S.

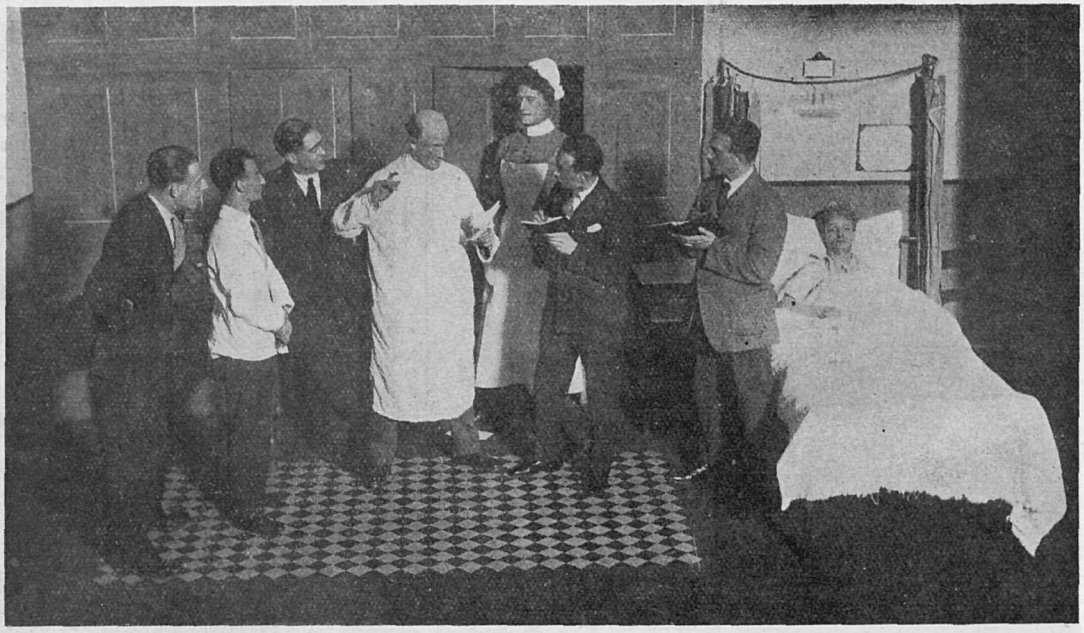
WHEN I came to Guy's I spent a term
As a mere ward clerk on a Surgical Firm;
I saw all the patients looking so melancholy
Rushed off to theatres on a nice white trolley.
They were rushed along so rapidlee
That now I'm an H.S.—not an H.P.
They were rushed along, etc.

I felt that Medicine was my bent,
To a medical ward I accordingly went;
The inevitable vices of my patients I sought
And noted them down in an appropriate report.
The bits I got were so very juicee
That now I'm an H.S.—not an H.P.
The bits I got were, etc.

So good was my silence as a policee
That now I'm an H.S.—not an H.P.
So good was my silence, etc.

In getting to know the rest of the staff
In "specials" I spent a year and a half;
I knew it didn't matter how much I knew
It only really matters that the staff know you.
They all know me well and so you see
That now I'm an H.S.—not an H.P.
They all know me well, etc.

As O.P.O. I knew just enough
To push the patients off with the customary stuff;
I also made a guinea or two



Flashlight Photo by G. A. Walker, Guy's Hospital.

Pat and Sam was now the place,
Although of work I did not a trace.
I showed my suits with cut so smart,
And if I didn't work at least I looked the part.
That tailors cut so suited me
That now I'm an H.S.—not an H.P.
That tailors cut so, etc.

When next to a medical ward I journey'd
I was thought to be awfully learned;
I invariably watched the H.P.s do
Lumbar Punctures, Wassermans and Acu-punctures too.
I showed myself so continuallee
That now I'm an H.S.—not an H.P.
I showed myself, etc.

My beer money now as a dresser I drew,
But as there was nothing whatever I knew,
Whenever the surgeon did a teaching round
I kept in the front but never made a sound.

From reports which I hope were partially true.
The guineas I made didn't satisfy me
So now I'm an H.S.—not an H.P.
The guineas I made, etc.

An H.S. now in me behold,
Who does more or less what he is told;
Responsibility I don't shirk,
But other people always have to carry out the work.
So that is why of course you see
That now I'm an H.S.—not an H.P.
So that is why of course, etc.

Now ward clerks, and dressers, if in time,
You wish to the top of the tree to climb;
As long as the staff only think you're clever
You never need do any work whatever,
Just look busy and so like me
You may be an H.S.—not an H.P.
Just look busy and so, etc.

The Song of the Parson.

WHEN a parson's not engaged in saving souls—
saving souls,
There are lots of other things he can do—
he can do,
He can hide in one of many cubby holes—
cubby holes,
And watch if what he heard is coming true—
coming true.
There is no one here I bet can hold the candle—
hold the candle
To him for being in the latest fun—
latest fun.
He guarantees to hear the latest scandal—
latest scandal.
Oh a parson's lot is such a happy one—
Ah—
When anyone is wanted for some fun—
for some fun,
A parson's lot is such a happy one.

When a patient's ill he's always at his bedside—
at his bedside,
If a nurse is feeling lonely he is there—
he is there,
For he finds his place of duty is alongside—
is alongside,
To comfort and console the little dear—
little dear.
I admit my evidence is only hearsay—
only hearsay,
That at browsing he's as good as anyone—
anyone,
But I dare not say what happened in the subway—
in the subway.
Oh a parson's lot is such a happy one—
Ah—
When anyone is wanted for some fun—
for some fun,
A parson's lot is such a happy one.

If he's wanted in the night-time for a christening—
for a christening,
You may see him coming quickly in the street—
in the street,
And in case there should be anybody listening—
body listening,
He wears some rubber soles upon his feet—
upon his feet.
He's asked to tea by many a charming sister—
charming sister,
And for appearance sake will eat a bun—
eat a bun,
I wonder if it's true that once he kissed her—
once he kissed her.
Oh a parson's lot is such a happy one—
Ah—
When anyone is wanted for some fun—
for some fun,
A parson's lot is such a happy one.

Synopsis of Programme.

ACT 1. THE PRE-ANÆSTHETIC
Scene 1. A Room in College
Scene 2. The same. A few days later

ACT 2. THE INDUCTION
Scene 1. The end of Faith Ward. Morning.
Scene 2. The Subway. The same morning

ACT 3. THE OPERATION
Scene 1. Sigmoid's room in College. The following afternoon
Scene 2. The end of Faith Ward. The same afternoon
Scene 3. The same. 9 p.m.

ACT 4. THE SHOCK
Scene 1. The same. The following morning

With the exception of ACT I., which occurred a short time ago, the action of the Play takes place in January, 1925.

Dramatis Personæ.

ACT 1. The Residents as their own sweet selves.

ACTS 2, 3 and 4

Patient	Mr. J. L. Woodhouse
Magda, a ward-maid	Mr. D. B. Whitlock
Lity, another ward-maid	Mr. N. L. Lloyd
Guy Sternum H.S. to Sir Deadly Gripp,	Mr. L. Forman
Nurse Gorge and Nurse Vampion	Mr. D. Vaughan
Ping, a ward-clerk	Mr. G. M. Stoker
Swiggit (a dresser), and Mr. Brassie	Mr. M. Jackson
Sister Faith	Mr. F. D. Howitt
Paul Sigmoid, an H.P.	Mr. G. D. Shaw
Padre	Mr. D. G. Sharp
A nurse and A visitor	Mr. H. Richards
Mr. Tonner, and Pong (a ward-clerk)	Mr. F. Bekker
Sir Deadly Gripp	Mr. D. S. Davies
Moppit (a dresser) and Shipray (a porter)	Mr. Mitman

The Nurses in Act 3, Scene 3, are Messrs. Lloyd, Mitman, Vaughan and Richards

The Play produced by Mr. D. J. P. O'Meara

Scenery by Mr. Eric Wornum, assisted by The Works Department and Ireby Cape

Correspondence.

Physiological Society's Lost Minute Book.

DEAR Sir,—I regret to say that Guy's Hospital Physiological Society is suffering from the loss of a minute book. It covers the period from 1915 to 1922. I have been instructed to ask if you will publish this through the medium of your columns, so that anyone who has the book or knows anything about it might help me to trace it.—Yours truly,

R. E. HAVARD,
Hon. Sec.

Guy's Hospital.
February 1st, 1924.

The Residents' Play.

SIR,—May we, approaching with all due reverence, be granted some little space in order to be allowed to thank publicly the many people who so willingly gave assistance to the Residents in this year's Play?

We would particularly like to mention Professor Johnston and Professor Pembrey who gave us a long "lease" of the Physiological Theatre, the Matron and Miss Shepherd for their help with the costumes, and Mr. Saltmarsh who, together with the interested co-operation of the Works Department Staff, constructed the stage, scenery, etc., and arranged the lighting. In addition we all owe a heavy debt of gratitude to Messrs. Wornum and Housden who gave up part of their holiday, the former to design and paint the scenery, the latter to undertake the thankless and onerous task of Prompter, and to Mr. Selby, who came and helped us at rehearsals and accompanied the songs. Mr. Richardson very kindly arranged the Loud Speaker, and Messrs. Strong and Jacobson were responsible for the excellent imitations heard there-on.

Finally, our thanks are due to Mr. O'Meara for that whole-hearted and inimitable way in which he carried out his task as Producer, to Mr. Stoker who undertook all the Box Office duties, and to Mr. Winston and the Clinicals who acted as Stewards each night. Mr. Howitt, of Nottingham, most generously printed and presented all the Programmes to us, and we are most grateful to him.—We are, etc.,

D. GORDON SHARP,
President of Residents.
DAVID S. DAVIES,
Vice-President of Residents.

The College,
Guy's Hospital, S.E.1.
February 11th, 1924.

P.S.—As possibly the only chance we shall have, may we say now that there never can have been more willing or loyal co-operation from all the Residents than we have been happy enough to have through all the Christmas and Theatrical activities.

Dentistry—and the Spanish Inquisition.

ALTHOUGH there is no evidence to show that they ever put their knowledge to any humanitarian purpose, there is every reason for believing that the members of the Spanish Inquisition had an excellent working knowledge of the practice of dentistry. Unfortunately, this knowledge was used almost entirely for the extortion of money, or for the propagation of their pet religious theories.

A document lately discovered in Spain reveals some interesting facts concerning these practices, and speaks of a quack dentist of the period, who, for the safety of his skin, suddenly acquired religious mania and joined the ranks of the faithful, his practice thereafter being enormously expanded, albeit his patients had no option but to be treated.

This practitioner had a very interesting method of extracting teeth—refractory or otherwise. The patient was fixed firmly in the chair, and a notch filed in the lingual surface of the tooth about to be removed. A loop was then passed round the tooth and under the notch, which prevented slipping. From this loop a length of thin, but tough cord was passed, to be wound on the drum of a small winch-like machine which was clamped firmly on to a bench in front of the operating chair. The machine, on being set in motion wound up the cord at the rate of one millimetre per minute. A marginal note states that the most refractory teeth invariably proved amenable to this treatment. There is not a single authentic record of a failure, excepting heart failure of the patient.

An alternative method was for the operator to hold a small blunt instrument, something like a small marlin-spike, against the offending tooth, while his assistant gave the distal end a smart rap with the striking up hammer. This method also, was rarely known to fail.

That this same dentist fully appreciated the value and necessity of devitalising teeth is shown by a later paragraph which describes how in some cases he cut off the crown of the tooth, thus exposing the nerve contained therein, and spread over the cavity a layer of Chili paste, or placed in it a rust pin-point, in both cases sealing the cavity with a blob of gutta-percha. In either case the nerve was almost invariably killed after the lapse of some few weeks, together with the rest of the patient's nervous system.

He is also credited with an extremely ingenious form of struck up denture, which was made as follows. A thin sheet of some metal was taken and hammered until it roughly fitted the patient's mouth. It generally fitted very roughly. The method used for retention in the mouth, was to solder two wire spikes on each side, which passed down the nerve cavities of the corresponding teeth and were cemented there. The denture was also provided with several sharply pointed projections which decorated both sides of the palate. These served to aid mastication. There would appear to have been no provision made for removal of the denture for cleaning purposes. His treatment of cleft palate

was simple in the extreme. The hole was plugged with gutta-percha or some other form of composition, and the patient left in a cell, without food or water, to recover. It is only fair to add that after a few weeks the patients were always perfectly comfortable—as far as earthly comforts were concerned. This dental genius appears to have treated only two types of oral diseases. One was the patient whose tongue would not keep quiet, and the other was the patient whose tongue would do nothing else but keep quiet. The treatment for both of these afflictions was the removal of the tongue "en bloc," which, he argued was sure of preventing a recurrence of the ailment.

We cannot help but feel relieved to find that this practitioner had never even sat for his L.D.S., and so cannot be truly considered as a blot on our noble profession. W. G. F.

Sport.

Rugby Football.

Guy's Hospital v. Cambridge University.

THERE were five Old Blues against us in this game at Cambridge last Wednesday week, January 30th, and those who had not gained that honour played well indeed. Such tough opponents did they prove themselves, that in the end we could only claim victory by a converted goal to 1 try. Our own team was at full strength except that C. L. Steyn was resting and E. E. Neser had not yet returned from his well-earned holiday.

The Hospital failed to get the ball in the scrummage. Not only was the hooking very bad, but the shoving was slack and one feels inclined to say that in one row it was non-existent. When the threequarters did get away, there was no straight running except from Graham-Davies, and consequently the wingmen were pressed for room. With our defence, however, no fault could be found, and the interval came with the score sheet a blank one. On the resumption Van Schalkwijk after a good run sent Finnemore over at once and the former added the extra points. The play was now fast and open. The attack on both sides came from the threequarters, neither quartette being allowed to get far, till at last Gilmer started some passing, the ball eventually reaching Devitt who crosskicked. F. G. Usher gathered the ball and went in by the posts. The kick at goal was missed by Devitt, and this was the margin by which Cambridge lost, 5 points to 3.

Guy's Team.—P. D. B. Spence, J. W. Finnemore, H. Graham-Davies, G. Fellowes-Smith, G. R. Mostert, W. Meissner, J. G. Van Schalkwijk, W. D. Doherty, E. H. Fouraker, N. M. Holloway, B. G. Scholefield, G. G. C. Cameron, G. G. T. Tregarthen, W. De Wet Vorster, J. W. Schabort.

Guy's Hospital v. Old Leysians.

MANY readers of these reports, in many parts of the world, will wonder why the margin of victory in this match, played at Wandsworth on February 2nd, was not greater. It therefore behoves one to try and explain, not with any wish to be critical, but rather for the information of those who look to the GAZETTE for news of Guy's Rugby Football, in which so many old students take a deep and everlasting interest.

The first thing that struck one was that Graham-Davies' absence was felt. Spence nobly filled the right centre position, instead of being full back, the place he fills so well, and he as well as the other backs ran broadside on to their opponents, instead of straight. Hence Finnemore, never fast enough to get away, was, as soon as he received the ball, always caught and smothered by a faster man in Philp of the Old Leysians. As the latter was always running with Finnemore and never to him, he was helpless. Van Schalkwijk was not at his best and the whole line suffered. The forwards did not shove and seldom got the ball cleanly—and how it hung in that back row!

With the wind at our backs we got but one try in the first half and that a good one by Steyn. Orsman, deputising for Fellowes-Smith dribbled well for what looked like a sitter, but it didn't come off, as no one backed him up. Next Finnemore got away on the right, but he looked round and hence lost speed. No result followed.

When ends were changed the Old Boys scored, though Doherty apparently could have kicked dead. A good conversion followed. The Leysian tackling was persistent and thorough, T. E. Morel the Old Blue was simply ubiquitous. It was within 15 mins. of time before we next scored. Both wings had had a few runs, and both committed that great fault of throwing the ball anywhere, when faced with difficulty. S.O.S. passing should be absolutely barred. It isn't passing, its, well—call it a throw of hope. Spence's try was quite good and Van Schalkwijk goaled. He also scored a try from a pass by Steyn. This was really a very excellent piece of work and our final score was thus made 1 goal 2 tries (11 points), to 1 goal (5 points).

Guy's Team.—W. Badenhorst, W. Orsmond, C. L. Steyn, P. D. B. Spence, J. W. Finnemore, W. Meissner, J. G. Van Schalkwijk, W. D. Doherty, N. M. Holloway, E. E. Neser, G. C. Cameron, G. G. Tregarthen, De Wet Vorster, J. W. Schabort, F. F. Brayfield.

Guy's v. University College Hospital.

2nd Round Inter-Hospital Cup Tie.

NO sooner does one season end and the Cup's destination be decided, than another seems to be upon us. This year we drew a bye in the first round and the second found us up against University College Hospital. The end found Guy's leading by 8 goals (one of which was a penalty) 5 tries (53 points) to nil. Its very difficult as a Guy's man to write a report of so one-sided a match. If you make much of your side's success, it will be absurd, on the other hand, do you belittle it, you belittle the opposition and that is the last thing we wish to do. We won by so great a total because J. W. Finnemore, H. Graham-Davies, C. L. Steyn and G. Fellowes-Smith had much safer hands

and much faster legs than their opponents, who moreover, had not mastered the art of tackling. In this art they had plenty of practice, but one gets mighty tired of so much of it, and one is sure to think as the afternoon progresses that the other fellow might do a bit more, and so one gets dispirited and fed up. But our opponents took all that came their way like the sportsmen they are. One envied the forward, was it not R. Ritchie, who trotted up each time after we had scored to kick off again, with a smile on his face, as much as to say, "Come on you blighters, here we are again." C. L. Steyn gained 4 tries, G. Fellowes-Smith 5, J. W. Finnemore, H. Graham-Davies and E. H. Fouraker 1 each. E. E. Neser converted one of Steyn's tries, with a wonderful kick. He also was successful with an awkwardly placed penalty. The absence of our Captain, J. G. Van Schalkwijk, was a pity. In all his games for us, it is seldom that he has had to stand down for injury. C. L. Steyn and H. Graham-Davies shared the honours of the other converted tries. Steyn kicked 3 goals and then missed one, Graham-Davies goaled the next three. E. E. Neser, at stand-off half back, did not try much on his own, giving up readily.

One was not quite satisfied with the shoving of the park. Untidy and slovenly was the going down, and the ball hung about like some of the scrummagers. There was no weight behind, and no concerted push. Three men took a very long easy and this won't do. The back line were pushing at a wrong angle, upwards and certainly not onwards. Meissner found the ball lying about and kept his attack going, or else they set off, after a kick had come their way by luck. One would like to see the scrum more solid, compact, and, with plenty of shove on, get the ball and heel it quickly and cleanly.

G. Fellowes-Smith ran splendidly. Graham-Davies very unselfish, treated him liberally. Steyn was fast and certain with his hands. W. D. Doherty led the pack well. B. G. Scholefield, (G. G. Cameron in the loose) and E. F. Fouraker were the pick of the pack. No fault could be found with Tregarthen and Holloway in the heavy work. We have got to get the ball and we cannot get it without good scrummaging. So that's that!

Result.—Guy's 53 points, University College Hospital Nil.

Guy's Team.—P. D. B. Spence, G. Fellowes-Smith, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, W. Meissner, E. E. Neser, W. D. Doherty, B. G. Scholefield, N. M. Holloway, E. H. Fouraker, G. G. Cameron, G. G. T. Tregarthen, W. De Wet Vorster, J. W. Schabort.

Fencing.

ON Monday 25th, at 3.30 a team from Oxford University will meet a Hospital team at foil and épee in the Pavy Gymnasium. Those interested will be very welcome.

Notices.

Papers by Guy's Men.

Sir Wm. Hale-White. An Address on the History of Percussion and Auscultation.—*Lancet,* 1924, i., p. 263.

H. C. Cameron, M.D., F.R.C.P. Stridor in Children.—*Clinical Journal,* 1924, liii., p. 49.

J. Lewin Payne, O.B.E., M.R.C.S., L.R.C.P., L.D.S. Milestones in the History of British Dentistry, 1855—1860: 1877—1880: 1919 and afterwards. —*Brit. Dent. Journ.*, 1924, xlv., p. 137.

C. Worster-Drought, M.D. Case of Progressive Neural Muscular Atrophy (Peroneal or Charcot-Marie-Tooth type) in which the Upper Limbs are also Affected.—Proc. Roy. Soc. Med., 1924, xvii., Sec. for the Study of Diseases in Children, p. 9.

E. G. Slesinger, M.S. Bony Ankylosis of the Lower Jaw, Anthroplasty with Full Restoration of Active Movement after Eleven Years.—*Ibid.* Clinical Section, p. 6.

H. W. Barber, M.B. (1) Two Cases of Hydroa Œstivale, with Notes on Three Other Cases. (2) Chronic Pigmentary Dermatis of the Legs.—*Ibid.*, Sec. of Dermatology, p. 18, 20.

T. G. Stevens, F.R.C.S. (1) Pedunculated Endothelioma of the Vulva. (2) Small Ovarian Cyst showing Papilliferous Growths in an Early Stage.—*Ibid.*, Sec. of Obstetrics and Gynæcology, p. 29, 30.

E. B. Dowsett, L.R.C.P., M.R.C.S., L.D.S. Interesting Case of Rarefying Periodontitis.—*Ibid.*, Sec. of Odontology, p. 6.

T. B. Layton, D.S.O., M.S. Case of Meningitis which recovered without Translabyrinthine Drainage. —*Ibid.*, Sec. of Otology, p. 35.

E. H. Richards, M.B., B.S. (Introduced by Mr. Mollison). Case of Cerebral Abscess as a sequel to Acute Otitis Media, which had Completely Healed. Operation. Recovery.—*Ibid.*, p. 41.

Norman Burgess, B.A., and A. A. Osman, M.R.C.S., L.R.C.P. Acidosis in Relation to Acute Rickets (Illus.).—*Lancet,* 1924, i., p. 281.

The Dental Society.

THE 24th Annual Dinner of the Dental Society will be held at the Trocadero Restaurant on Saturday, March 22nd, 1924. Tickets may be obtained from the Hon. Secretary, and to facilitate arrangements it is hoped that applications for tickets will be made early.

Specialities.

"Harvo."

MESSRS. R. WINTER, LTD., FOOD SPECIALISTS, BIRMINGHAM.

WE have before us samples of "Harvo," a malted cake of great nutritive value, and easily digested.

It is made both in plain and fruit varieties, and should prove welcome both in the Nursery and for adults with weak digestion, as besides its nourishing properties, it is agreeable to the taste.

Samples will be sent to Medical Men on request to the above address.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *March 1st, 1924.* *Number 930*

PASSIM

DURING the last fortnight the Hospital Physical Society has received a lecture from one more outstanding member of the Medical Profession. Ever since the day, now but a dim memory, when the headlines of the evening newspapers flashed round the eager news, "*Dr. Spilsbury returns with the organs,*" we have looked forward to seeing the man who has combined the accuracy and observation of the student of medicine with the imagination and deduction of the police-detective. This we did on the 22nd instant, when Sir Bernard Spilsbury gave a most interesting lecture on "Crimes of Violence," which we hope to publish in full in our next number. In his lecture Sir Bernard dealt only with the practical side of the committed crime and the detection of its perpetrator. An equally attractive and perhaps more useful one might be written on the causes of such crimes and their prevention. A great many books must have been written on this aspect of the subject, but we have not read them, always excepting one short chapter in a synopsis of forensic medicine. During the last week there was a discussion at the Hospital on the subject of Civilization, and the motion "that modern civilization is a failure" was defeated. This seemed to us a great pity, for the cry of "back to nature" is a very urgent one. The further we get from nature the more likely are crimes of violence to be rampant. A simple-minded Mr. Smith might pole-axe a Mr. Smithers, and it might be a most admirable act on the principle of the survival of the fittest; but only an over-civilized Mr. Smith could drown a series of wives in their baths in each case before the conclusion of the honeymoon. Mr. Smith—we take him as a type—was a thoroughly civilized, unemotional man. He lived like every other citizen in an atmosphere of bricks, mortar and aspidistras, paid his rates and taxes, voted for other citizens to make his laws and—being over-civilized—broke them again. Crimes of violence! They were hardly that. Mr. Smith had no emotion strong enough to be termed violent. He was a cold, calculating, civilized being who knew neither how to hate nor how to love. Most readers of the GAZETTE will remember the tale of the gentleman from Balham, who loved his wife so passionately that he repeatedly rose from his breakfast table and, without a word to his wife, seated opposite him, travelled entirely round the world in order to refind her, whom he loved so dearly. That was the beautiful act of an under-civilized man. We doubt if there is a single husband now living in Balham who has paid a similar tribute to his wife.

WE would call the attention of all our readers to the announcement of the Special Guy's Hospital Matinee to take place on March 10th, at the Aldwych Theatre. The entire proceeds

will be presented to the Hospital, so that the matinee should be sure of receiving the fullest support from all Guy's men and women.

THE *Hospitals' Competition promoted* by the British Charities Association, which closes next month, has so far received very inadequate support from Guy's men. Bovril Ltd., having presented £30,000 in prizes and also paying the cost of an advertising campaign, each Hospital is enabled to retain for its own use the whole proceeds of all the tickets it sells. This unique opportunity of directly benefiting "Guy's" while giving ticket holders a good chance of winning one of the very handsome prizes offered should surely appeal to the sporting instinct of our readers. Tickets, 2s. 6d. and 5s. each, may be obtained at the Appeal Office, Guy's Hospital, London Bridge, S.E.1.

Two days ago the Hospital passed strenuously and noisily out of the Competition for the "Rugger Cup." We had become used to holding the Cup, and it seemed hard that anyone should take away from us what we had grown up to consider our own private property, but the Bart.'s team on the day was better than ours, had more than its fair share of the game, and thoroughly deserved its victory by six points to nil. As the game wore on, one could feel the cold hand of fate descending over the Guy's supporters. Confidently noisy at first, their clamour gradually took on a note of despair, and the almost boastful "That's the stuff to give 'em," became a rather querulous "Here, I say, play up Guy's."

The Hospital would like to extend their very heartiest congratulations to our victors, who now stand a very excellent chance of winning the Cup for which they have fought so long and valiantly.

We also congratulate Van Schalkwijk and his team on their whole-hearted attempt to keep the Cup, and express our firm conviction that we shall re-win it next year.

Obituary.

Daniel Herbert Forty.

I FEAR there are few men left who entered Guy's in 1870, but those who are still here will remember and mourn the loss of Daniel Herbert Forty, who died suddenly on February 5th. A lovable man, the friend of all, setting us an example of steady perseverance in work, who held every appointment open to the student, and gained alike the esteem and confidence of the Staff and of his fellow students.

On leaving Guy's he went to Wotton-under-Edge and joined the late Mr. Simmons and for some 45 years had a very large country practice, and was beloved by all his patients and many friends. A very serious illness from blood poisoning resulted in his retirement about three years ago, since when he had lived at Paignton. The large attendance at the funeral showed the high esteem in which he was held. His sudden death will have been a shock to his many friends, and their sympathy will be great for the widow and daughter in their bereavement.

FARRANT FRY.

Henry Blatherwick.

HENRY BLATHERWICK, who qualified in 1882, and was one of the most popular and distinguished of Guy's men of his time, has recently died at his residence in Walton Street, S.W. The Superintendent has received from an old friend of his a donation to the Hospital of five guineas in his remembrance.

Robert Guthrie Poole Lansdown.

WE regret to announce the death of yet another old Guy's man in Dr. Lansdown, who qualified in 1890. Dr. Lansdown was the father of a recent President of the Residents, to whom and the rest of his family we offer our deepest sympathy.

Insulin.

A Paper read before the Physiological Society by MR. KENRIC C. BILLINGHAM.

IT may appear premature to attempt a satisfactory review of work that has but recently passed the experimental stage and which still calls for much research, and I have met with considerable difficulty in correlating conflicting evidence from sources which might otherwise appear accurate, as is so often experienced with recent work. However, in the brief time at my disposal, which of course is altogether inadequate for a full exposition of the subject, I will attempt to summarise important aspects of Insulin, including its relation to Physiology and Medicine. I have deemed it advisable to divide my paper into sections.

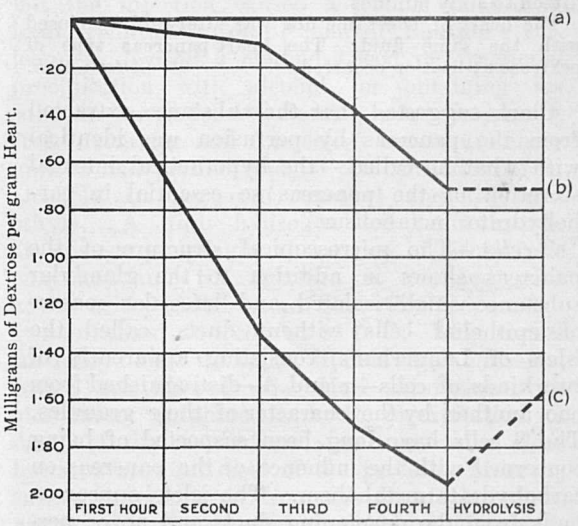
Lépine in 1899 suggested that the condition of diabetes following complete extirpation of the pancreas might be due to the withdrawal of an internal secretion normally necessary for the metabolism of carbohydrate. Administration of extracts of certain other ductless glands, for example, of the suprerenals, has a marked pharmacological action; extracts of others, for instance, of the thyroid, are able to alleviate symptoms associated with its atrophy. A subcutaneous graft of pancreatic tissue in animals has been known to hinder the onset of diabetes after complete pancreatectomy. Extracts of the pancreas, prepared by several investigators, including E. H. Starling and E. L. Scott, in the hope of isolating a pancreatic hormone, gave no consistently good results to justify the further development of their work.

Pancreatic Perfusates.—In 1916 Clark[1] discovered that the isolated mammalian heart, kept alive by perfusing its blood vessels with Locke's solution containing glucose, removed sugar from the perfusion fluid much more rapidly when the fluid used had first been perfused through the blood-vessels of the pancreas, and his experiments are so remarkable for their precision that I should like to give a brief account of them. He thought it possible that the proteolytic enzymes of the pancreas might readily inactivate a more delicate product of internal secretion. In his perfusion experiments on the pancreas, the heart, and a heart-pancreas preparation, he was fully alive to the possibility of bacterial contamination, a factor which profoundly modifies the rate of sugar consumption. Consequently he took aseptic precautions, used controls, and took bacterial counts before and after his experiments. He concluded that the pancreas had no local independent action on glucose, but seemed to supply something to the perfusing Locke's solution that brought about a utilisation of sugar by the living heart that did not occur with the heart alone. This substance seemed to possess some of the characteristics of an enzyme, for he found that it was rendered inactive by boiling or on standing, that it acted in small amounts and caused a great acceleration in the rate of a reaction which otherwise proceeded slowly. The living heart in the presence of this pancreatic enzyme is responsible for two effects:—

(1) Condensation of sugar to a non-reducing form that yields a simple sugar again on hydrolysis.

FIG. 1.

HEART AND PANCREAS OF DOG IN SUGAR METABOLISM.



UTILIZATION OF DEXTROSE:—

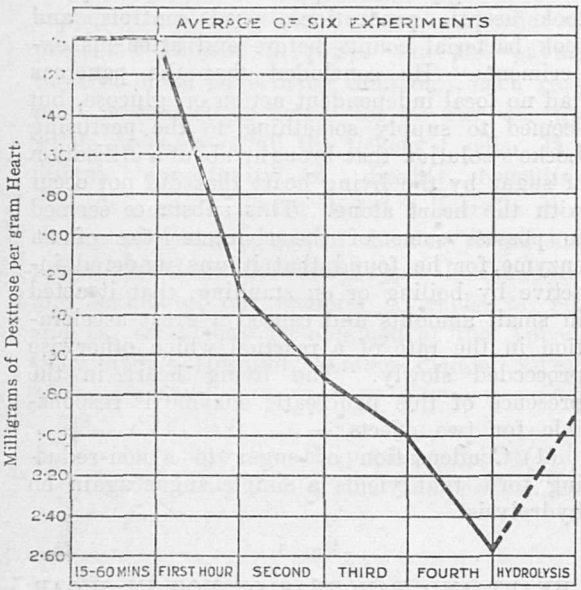
(a) When pancreas is perfused alone.
(b) When heart is perfused alone.
(c) When heart and pancreas are perfused together.

(2) A disappearance of sugar which is probably due to its destruction by hydrolysis or oxidation.

This is shown diagrammatically in Figs. 1 and 2.

FIG. 2.

HEART AND PANCREAS OF DOG IN SUGAR METABOLISM *(continued)*.



The pancreas was perfused for periods varying from fifteen to sixty minutes.

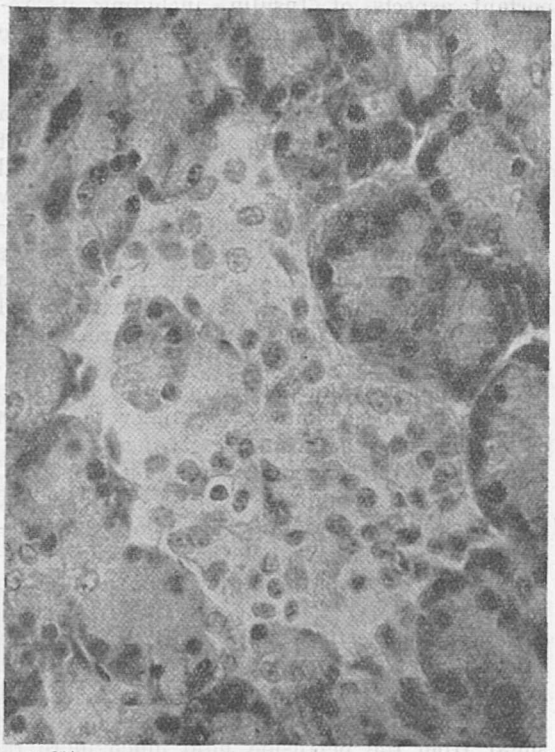
The heart of the same dog was afterwards perfused with the same fluid. The heart-pancreas type of pextrose utilisation occurred. *After Clark.*

Clark suggested that the substance extracted from the pancreas by perfusion was identical with what he called "the hypothetical internal secretion of the pancreas so essential in carbohydrate metabolism."

β-*cells*.—The microscopical structure of the pancreas shows in addition to the glandular substance small isolated and irregular masses of epithelial cells without ducts, called the islets of Langerhans, consisting apparently of two kinds of cells—*a* and β—distinguished from one another by the character of their granules. The β cells have long been suspected of being concerned with the influence of the pancreas on carbohydrate metabolism. The islets appear as buds from the developing ducts and never possess a lumen. Their structural connection with the ducts is lost, and they become isolated amidst the glandular substance, though closely related to the blood channels. The cells secreting the digestive enzymes become completely degenerated a few weeks after ligation of the pancreatic ducts, whereas those of the islets of Langerhans, which apparently secrete the antidiabetic hormone, remain more or less intact. Hydropic degeneration of these β cells does seem to occur, however, parallel with active diabetic symptoms.[2] Most of the pancreatic tissue was removed from various animals, principally dogs, and minute parts were taken at long intervals from the remaining fragment of the pancreas for the purposes of histological examination.

Fig. 3 shows an islet almost normal, and Fig. 4 an islet taken from a diabetic dog.

FIG. 3.



× 500

An island showing incipient vacuolation in the form of thinning of the cytoplasm. In special granule stains the same phenomenon is seen in the form of thinning of granules.

Pancreatic Extracts.—An extract of these cells containing the essential internal secretion might correct the disordered metabolic functions. Toxic actions often follow the injection of an extract of any animal tissue, when protein and split protein products are present.

These reactions have been particularly severe in the experience of investigators with pancreatic extracts. They have overshadowed any beneficial effect following injection of an extract supposed to contain the deficient hormone, and have been the chief obstacle to their introduction for clinical use. The people lately experimenting at Toronto found with their early extracts such a toxic reaction, but insulin as prepared now has been freed from the destructive concomitants, and these reactions, except for causing slight urticarial eruptions in a very few sensitive patients, are never seen.

FIG. 4.

× 500

Showing nearly maximal vacuolation of entire islands. In the centre are seen cells which are little, if at all, changed. Under special granule stains the majority are found to be α cells. The other are β cells, which for some reason survive longer than the others.

Reproduced from the Journal of Metabolic Research by kind permission of Dr. Frederick M. Allen,

Circumvention of Enzymes and Preparation of Insulin.—Three methods have been used for isolating the essential principle of the pancreas.

(1). It has been mentioned that selective atrophy of the acinar cells takes place after ligaturing the gland ducts. Banting tried the effects of an injection prepared from the surviving β cells on the blood-sugar and 24-hourly sugar secretion of dogs rendered diabetic by pancreatectomy. There was a definite lowering of the sugar in the blood and urine, an improved subjective condition, and a very marked prolongation of life as compared with controls.

(2). The destructive proteolytic enzymes are almost, if not entirely, absent in fœtal pancreas, and by intravenous and subcutaneous extracts of bovine fœtus at about the fifth month, the percentage of blood sugar and daily urinary excretion were markedly reduced in depancreatised dogs. Daily injections of this extract enabled a depancreatised dog to live for 70 days. The active principle is destroyed by boiling in strongly acid solution, but is not affected by tricresol, which may therefore be used as a preservative.

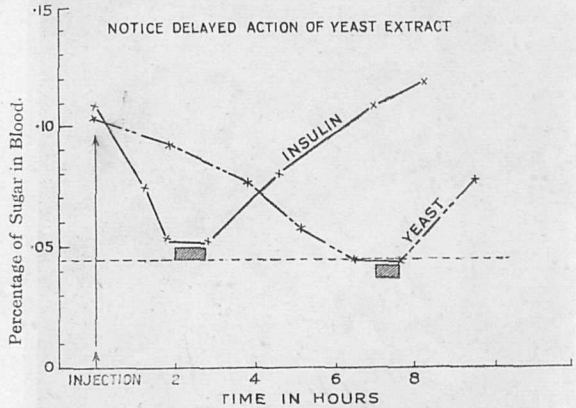
(3). The third method is the one now used, and is found the most economical and yielding of good results. From the pancreas of the fully-grown ox, using alcohol as the extracting medium, so as to circumvent the destructive action of trypsin, an extract was prepared and injected into a boy of 14 suffering from diabetes. The blood sugar was reduced by 25 per cent., but the injection caused a certain amount of local irritation. Collip,[3] one of Banting's colleagues, devised a method based on fractional precipitation with alcohol for obtaining insulin in purer form. Fresh pancreatic glands, freed from fat and connective tissue, are finely minced and poured into 95 per cent. denatured alcohol (10 per cent. methyl and the rest ethyl). A high hydrogen ion concentration at this stage inhibits the action of proteolytic enzymes, and the mixture is acidified with acetic acid. After some time, the preparation is neutralised and chilled to 0° C. This causes turbidity due to some lipoids and proteins, which are filtered off. Half saturation with ammonium sulphate leads to precipitation of much of the insulin, and treatment with alcohol separates out most of the protein. More insulin is precipitated from the filtrate by ether, which with the remaining alcohol is decanted. This extract is heated in vacuo with dilute ammonium hydroxide, so that pH is 8, when insulin is completely soluble. When the pH is made 3·5, a dark-coloured substance se-

parates out and is removed by filtration.* This is crude insulin and may be used clinically, but it is usually purified by isoelectric precipitation, or converted by picric acid into an insoluble picrate, and then into a soluble hydrochloride. The purified product is diluted with acidified water, so that pH is 2·5; ·1 per cent. tricresol is added and the solution diluted with sterile distilled water to 10 or 20 units per c.c. The insulin generally in use now contains 20 units per c.c. The yield of insulin for clinical use has risen from 15 units per kilogram of pancreas in April, 1922, to an average of 400. Professor Krogh of Copenhagen claims to have obtained from the pancreas of the pig 1,000 units, whereas the highest in America has been 900. The increase in acidity of the extractive has been the greatest single factor in improving the yields.

Chemical Reactions of Insulin.—Chemical tests applied to the hydrochloride indicate almost negligible quantities of phosphate, fructose, tyrosine, and tryptophan, but crude insulin gives definitely positive Seliwanoff, Millon and glyoxylic acid reactions. Both give positive Molisch and biuret tests. The Pauly test for histidine is positive, as with other substances of strong physiological activity, such as the active principles of the pituitary. The action of pepsin and trypsin on insulin indicates that the proteins or protein products in it are not merely impurities, and evidence points to the conclusion that insulin itself is of the nature of a protein.[4] The action of these enzymes seems to be true proteolytic hydrolysis, involving the breaking up of at least one amino-acid coupling, and it may be that insulin is either a simple polypeptide, easily adsorbed and brought down by precipitation with more complex protein derivatives, or a group or radicle present in certain proteins easily hydrolysed by proteolytic enzymes. The qualitative reactions range from a negative biuret for the simplest group retaining insulin properties, to those of a typical protein. The hydrochloride is soluble in water, giving a solution of pH_4, which is rendered inactive by boiling for some time, and is fairly soluble in acid, but readily destroyed in alkaline solution.

Dose.—Insulin lowers the percentage of blood sugar in normal rabbits, the rate of development and the severity of the consequent symptoms being dependent somewhat on the method of injection, and state of nutrition and body weight of the animal. The most generally accepted unit of insulin is that amount, which when injected subcutaneously lowers the percentage of blood-sugar to within ·045 per cent. in four hours or less in a rabbit weighing two kilograms, from which food has been withheld for from 16 to 24 hours. The apparently peculiar figure of ·045 is taken because at about that concentration of sugar the animal develops characteristic symptoms, the counterpart of the hypoglycæmic reaction in diabetic patients, to which I will refer presently. The train of

FIG. 5.



Shaded area = time during which hypoglycæmi reactions were seen. *After Hutchinson, Smith & Winter*

symptoms includes violent convulsive seizures, with intervals of coma, and death finally supervenes, unless the specific antidote be given, namely, 1 gram of glucose for each kilogram of body weight, when the animal quickly recovers, and may appear normal within an hour. It is obvious that this method is crude and clumsy, but no precise method of fixing the pharmacological assay of insulin has yet been found. Different preparations of insulin vary within fairly wide limits in their clinical effects.

Insulin-like Substances.—Winter and Smith[5] at Cambridge claim to have experienced remarkable clinical results with a solid preparation obtained by extraction from yeast. It

*A simpler method of preparation by aqueous extraction is described by Dodds and Dickens, of the Middlesex Hospital, in *The Lancet*, February 16th, 1924. The method depends on the solubility of insulin picrate in moist acetone or alcohol. The picrates of most proteins are insoluble in this medium.

appears to be similar to insulin in its properties and effects. Fig. 5 shows the effect of a yeast preparation on the blood-sugar of a rabbit compared with the effect of insulin.

Winter and Smith also report lowering of the blood sugar in a rabbit weighing $1\frac{1}{2}$ kilograms in an hour from ·17 to ·13 by injection of 5 c.c. of raw potato juice. Collip[6] thought that wherever glycogen occurred in Nature, a hormone similar to insulin would be present. Extracts of onion and preparations from 70 per cent. alcoholic extraction of potatoes, rice, beetroot and celery lower the blood-sugar on injection into normal rabbits. The blood sugar of a depancreatised dog was made normal for many hours, and the urine was practically sugar-free.[7] Other plant tissues have given similar results. This hormone, apparently universally present in plant tissue, for which the name glucokinin is suggested, appears to be in some ways superior to insulin, and the almost complete absence of toxic properties of relatively crude extracts of many plant tissues is of practical significance. An insulin-like substance has been found in the tissues of the clam, which lowers the blood-sugar in rabbits as does insulin, only the hypoglycæmic reaction appears two or three days later. It is suggested that an inactive precursor may be slowly activated after injection.

Method of giving Insulin.—Insulin has no effect when given by mouth or rectum. When mixed with gum, and injected subcutaneously, the absorption was delayed, and a larger dose was tolerated. The almost ineffective action of insulin when given per os is due to its destruction by pepsin and trypsin, and not to its inability to pass through the intestinal wall, for experiments on animals indicate that a small portion is absorbed when insulin is introduced directly into the duodenum. To produce such an effect in the human subject, enough alkali would have to be added to neutralise the acid gastric juice and so render pepsin inactive. Administration to rabbits by inunction has been attempted at Glasgow.[8] Crude insulin was incorporated with lard and lanoline and applied with a bandage on the bare shaved skin of rabbits. A more prolonged suppression of high blood-sugar was noticed than with ordinary methods. As yet, however, subcutaneous and intravenous injections are the only methods of proved efficacy.

Diabetes Mellitus and former methods of Treatment.—Although the introduction of insulin has brought about a complete change in the treatment of diabetes mellitus, yet most of the theory of this disease, more especially that connected with metabolism, is still unchanged. Also since the supply of insulin still fails to meet the demand the former methods are in use for a certain proportion of sufferers.

Diabetes in man is a progressive disease, formerly defined by its symptoms, of which the most patent is the occurrence of glucose in the urine (glycosuria). We may, now, express the cause instead of the effects, and say definitely that it is due to an insufficiency of the internal secretion of the pancreas. Diabetes is characterised by the gradual failure of the tissues to assimilate and oxidise glucose, and therefore, in severe cases, the R.Q., which gives an indication of the total oxidative processes taking place in the body, is low, even when the diet contains an abundance of carbohydrate. The blood contains an excess of glucose, which is formed from carbohydrate and from protein, and even on a carbohydrate-free diet the ratio of glucose to nitrogen may be high. The failure of the tissues to utilise carbohydrate affects the metabolism of both fat and protein. The oxidation of fat is incomplete, and β-oxybutyric acid, aceto-acetic acid and a small quantity of acetone appear in the urine. Since carbohydrate is not available, the tissues are compelled to rely solely on fat and protein for the production of heat and the performance of work, and as a result, the excretion of end-products of protein metabolism is increased. Many patients have passed into a state of coma and died. The presence of acetone bodies in the urine is called acetonuria or ketonuria, and in the blood, ketosis. Previous treatment was based on experiments with depancreatised dogs and it was found that these diabetic animals lived longest if the glycosuria was abolished by starvation, and they were afterwards allowed only small quantities of a non-carbohydrate diet. Applying these principles directly to human diabetes, the patient was starved until sugar-free, and food was added in small amount each day, beginning with carbohydrate and protein, until the carbohydrate tolerance was reached. The diet was arranged permanently below this level. Fat was added in sufficient amounts to prevent the patient's losing weight. Formulæ were devised for obtaining the proper amounts of protein, fat and carbohydrate, calculated from

the basal metabolism, (to which the total calorific value of all the food should approximate), the nitrogen equilibrium (for protein) and the carbohydrate tolerance, determined from the intake, minus that excreted and that assumed to be formed from protein. The remainder of calorie value was made up in fat. Broadly speaking such methods were generally in use before the isolation of insulin. At this hospital, treatment by fasting and by attempting to keep the patient sugar-free was remarkably successful under Dr. Poulton and Dr. Ryffel, and the mortality during the years 1916—18 decreased to approximately one-fourth of that experienced with older methods.[9]

It is of fundamental importance to realise that although insulin has made the treatment of diabetes mellitus a lighter burden to the patient and a less harassing task for the physician it does not eliminate the necessity for strict dietary regulation.

Physiological and Clinical Effects of Insulin.—The effect of administration of insulin to depancreatised dogs is to remove the cardinal symptoms of diabetes. The R.Q. temporarily rises, indicating that the power to metabolise carbohydrate has been increased, for diabetes should be regarded rather as an extreme lessening of the power to utilise carbohydrate, and not as a complete failure. Indications point to the conclusion that some carbohydrate is used even in the severest forms of diabetes. Ketonuria, which in a diabetic dog is not so relatively severe as in man, entirely disappeared with insulin treatment, and remained absent so long as the administration was continued. The glycogen content of the liver increased in one case from 1 per cent. to 12 per cent.[10] It is normally about 10 per cent. Glucose oxidation seems to occur as in a normal animal when insulin is given. Insulin also prevents excess of sugar in the blood (hyperglycæmia) and glycosuria, which has been mentioned as the most obvious symptom of diabetes. All the effects of insulin injection in animals are seen, perhaps more strikingly, in diabetic patients. In adequate doses, insulin is capable of removing the cardinal signs of disease for many hours. Permanently to suppress the symptoms, the injections should be repeated in most cases twice daily. Acetone bodies in the blood, to which condition fatal diabetic coma is related, are diminished, blood-sugar falls rapidly, urinary sugar decreases and often disappears.

There is a raising of the power to metabolise carbohydrate as revealed by a study of the R.Q., other metabolic defects are remedied and metabolism becomes more like that of a normal person. The subjective condition of the patient is also greatly improved. There is no definite expectation that a case of diabetes can be *cured* by insulin so as no longer to need it. However, some incipient cases after a certain period of insulin treatment have recovered such a degree of tolerance as to maintain them on a basal diet without insulin.[11] In these patients small protective doses of insulin have been given to maintain this newly regained tolerance. All that can be said, and this can be stated with certainty, is that the downward progress of the disease is arrested.

FIG. 6.

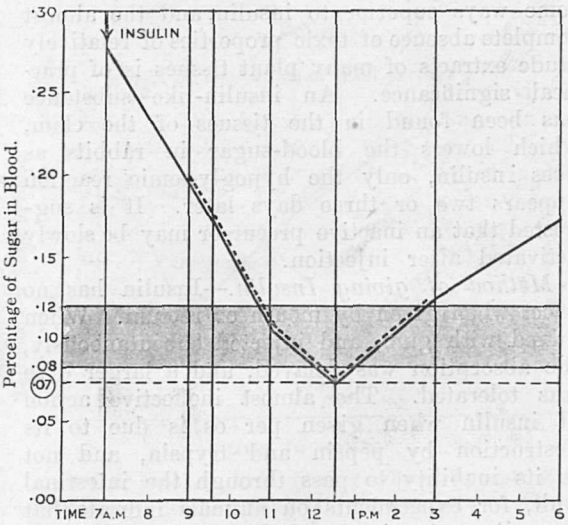


Diagram showing the fall in blood-sugar in a man after a single subcutaneous injection of insulin given at 7 a.m.

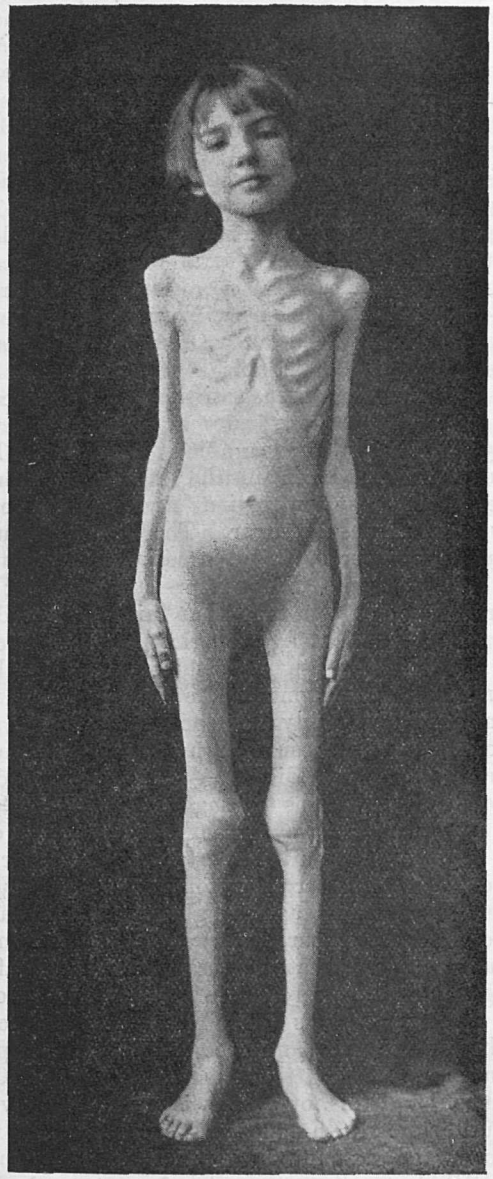
The urine was sugar-free from 9 a.m. until 3 p.m. Hypoglycæmic reaction begins to develop at about ·07%.

The shaded area represents normal variation of blood sugar level in different individuals. *Constructed from details of a case given in the B.M.J. by Banting, Campbell and Fletcher.*

I should like to discuss now the physiological and clinical effects of insulin in more detail. On the first or second day of treatment, if enough insulin is given, patients become sugar-free, and on the second or third day, ketone-free. Patients become conscious of returning strength, and their habitual depression or irritability gives place to cheer-

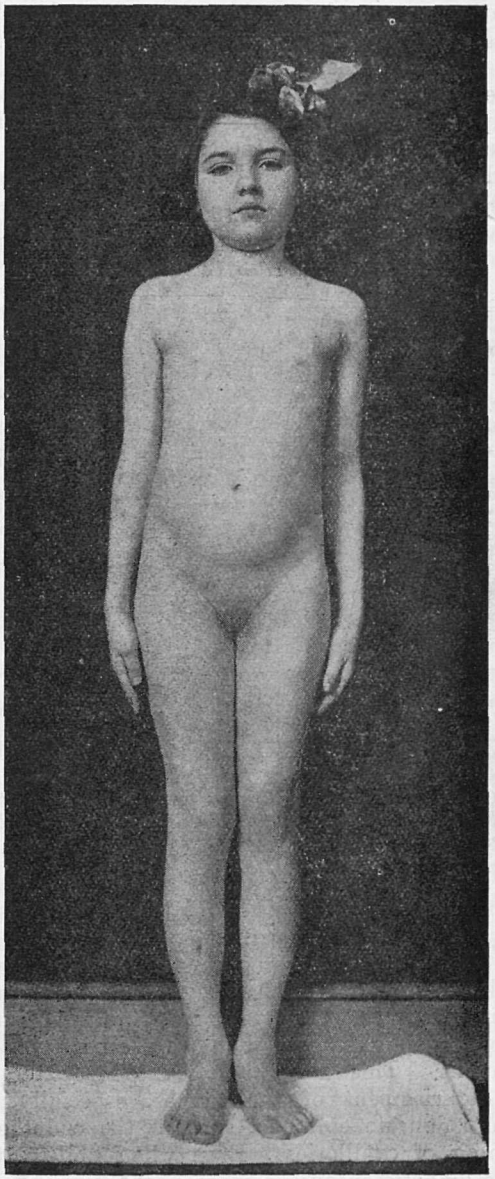
fulness and optimism, a change which perhaps is more deep-seated than generally

FIG 7.



supposed, and which is undoubtedly a factor in the process of recovery. Hunger gives way to appetite, thirst is lessened, and œdema, which is often present, disappears. The skin becomes less harsh and dry and the hair softer, in fact, the patient loses the characteristic diabetic appearance. Fig. 7 shows a typical case of juvenile diabetes before and after insulin treatment. The photographs were taken on October 31st, 1922, and April 11th, 1923.

FIG. 7.



Reproduced from the Journal of Metabolic Research by kind permission of Dr. Frederick M. Allen and Dr. H. Rawle Geyelin

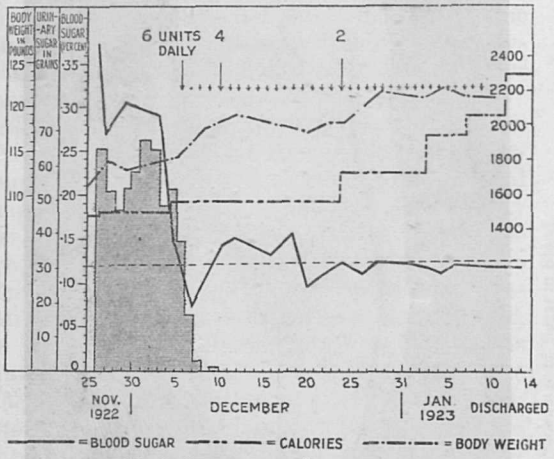
These photographs are reproduced from the *Journal of Metabolic Research*, and Dr. Geyelin has asked that credit for them should be given to the Presbyterian Hospital in New

York, the teaching Hospital of the Columbia University Medical School, Department of Internal Medicine.

They illustrate the remarkable restoration of physical vigour and body weight in young patients, formerly considered the most hopeless cases. Many adult patients have been enabled to return to their work after a month's treatment. Their weight can be increased by supplying food in excess of the caloric requirement, together with increased amounts of insulin.

FIG. 8.

DIAGRAM ILLUSTRATING THE CLINICAL EFFECTS OF INSULIN INJECTION.



Shaded area = urinary sugar.

Constructed from details of a case quoted by Banting, Campbell and Fletcher in the Journal of Metabolic Research.

Mild infections in diabetics are favourably influenced by insulin treatment. Chronic pyorrhœa in one patient recorred when insulin injections were stopped, and it was relieved again when they were continued. Diabetics are perhaps more subject to infections and gangrene than any other type of patient. This may be accounted for by the ill-nourishment of the tissues, especially the more delicate epithelia, such as the endothelial lining of capillaries. Even when well-treated, the diabetic enjoys no more, probably somewhat less immunity to intercurrent disease than the normal person. Minor maladies, such as colds or mild bronchitis, which ordinarily continue for weeks in the average diabetic are often seen to clear up with great rapidity on adequate insulin therapy. In diabetes associated with advanced pulmonary tuberculosis, the use of insulin has enabled the patient to be supplied with a diet far in excess of the amount necessary to maintain life, and the outlook from the standpoint of the pulmonary disease is improved. The pyogenic infections in diabetes usually clear up rapidly once the blood-sugar is restored to its normal level. A liver full of glycogen prevents or reduces to a minimum post-operative acidosis. Carbohydrate is given above the tolerance and a large dose of insulin to store glycogen and prevent glycosuria. It is proposed to do the same in diabetic parturition. Apparently insulin does not greatly influence general infections, except that it enables surgical operations to be carried under better conditions. Normally, the feeding of high diets, and attempting to make their utilisation possible by large doses of insulin has not been satisfactory. The concentrating of carbohydrates at one meal in the day is equally undesirable. Glycosuria has been abolished with insulin injections with a diet on which the patient formerly excreted large quantities of sugar. The dose of insulin varies in different cases, especially in relation to age, and with different preparations, but as a rule is much less than that initially needed to render the patient aglycosuric. Conditions due to varying degrees of disturbed fat metabolism, such as ketonuria, ketosis, and diabetic coma are favourably influenced. Ketonuria, associated with glycosuria, clears up when enough carbohydrate is oxidised. A patient on one day excreted 27·3 grams of sugar, and 6·70 grams of ketones. He was given one dose of 4 c.c. of insulin. The urine was free from sugar in two hours, and from ketones in four hours. Ketones appeared again eight hours afterwards and sugar ten hours afterwards. It is significant to notice that ketones disappeared after sugar and reappeared before it. When ketosis is present, that is when the abnormal acids β-hydroxy-butyric and aceto-acetic acid are present in the blood, there is a low alveolar CO_2 tension, and this, of course, is approximately in equilibrium with the CO_2 tension in the blood, the amount below normal being proportional to the amount of acetone bodies in the blood. The concentration of sodium bicarbonate in the blood (the alkaline reserve), is also lowered, often in almost the same proportion, so that the hydrogen-ion concentration of the blood may remain normal. Under insulin treatment, ketosis disappears en-

tirely, and the alkaline reserve begins to rise a little later than reduction in blood ketones and distinctly later than clinical signs of improvement. Inadequacy of insulin is indicated by failure of the alkaline reserve to increase.

Diabetic Coma.—Insulin treatment constitutes an important step in the treatment of diabetic coma, which often accompanies a large acidosis.[12] The large majority of diabetic coma cases were formerly regarded as hopeless. Diabetic coma is not true acid intoxication (by which is meant an increase in the concentration of hydrogen-ions in the blood), nor yet is it altogether "compensated acidosis" (by which is meant a circulation of abnormal acids in the blood, with adjustment of other acids and bases so that the hydrogen-ion concentration is little altered). Hyperpnœa when present is due to the enolic group —COH=CH which has a stimulating effect on the respiratory centre quite apart from the acidity of the substance containing this group, that is, aceto-acetic acid or one of its salts. The substances shown in Fig. 9 have been shown by Hurtley and Bevan to have this effect.

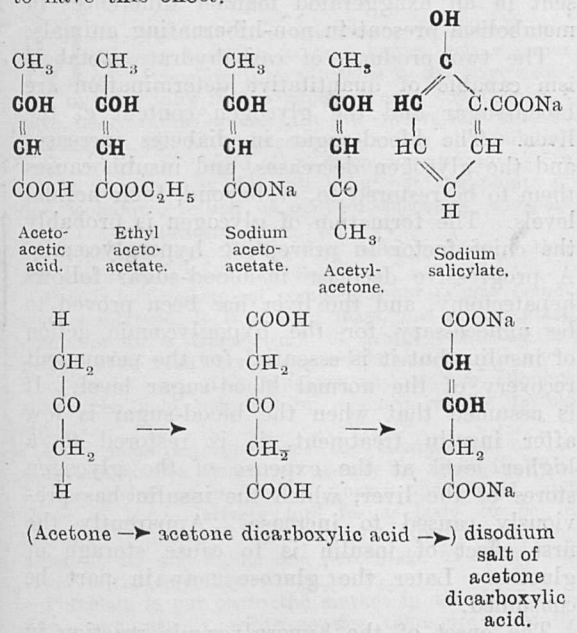


FIG. 9.—Showing the constitution of substances observed to have a stimulating effect on the respiratory centre.

Alveolar CO_2, and therefore the CO_2 of the blood is low in severe diabetes as discovered by Beddard, Pembrey and Spriggs.[13] The acidosis is partially or wholly compensated in many severe cases by decrease of the alkaline reserve. A case of coma where the pH of the plasma was 6·98, the lowest ever recorded, recovered with insulin treatment. Sodium bicarbonate, which was previously used in cases of diabetic coma, by mouth or intravenously, was found not very satisfactory, especially in large doses, but a moderate quantity is now recommended[14] to assist the excretion of acid bodies, at the same time as insulin and glucose arrest their production. Coma is most probably produced by the specific toxic action of aceto-acetic acid and its salts on the nervous system. There is slow, deep breathing (called air-hunger), the skin is dry, the pulse low, and the veins are collapsed. A large amount of insulin is injected either subcutaneously or intravenously, followed by subcutaneous injections, together with fluids containing glucose, by nasal tube if necessary. No attention need be paid to the excess of sugar in the blood, because the object of these injections is to reduce the combustion of fats to a minimum, and thereby to decrease ketone production.

Hypoglycæmic coma.—A great danger in insulin treatment is that of overdosage. A too rapid or a severe fall of blood sugar leads to distressing, dangerous, or even fatal results. When a single injection of insulin is given, the blood sugar reaches a low point in two to eight hours, and is likely to be lowest about four hours after the injection. Sometimes the blood-sugar overshoots the mark and falls much below the normal level, when characteristic symptoms develop, analogous to those convulsions in the rabbit, experienced in testing insulin units. In marked contradistinction to the conditions in hyperglycæmic (diabetic) coma, in hypoglycæmic coma, the skin is clammy, the pulse bounding and the veins stand out. These symptoms can usually be distinguished from those of diabetic coma, but it must be pointed out that the ultimate criterion is the blood-sugar level. The symptoms are almost always present in man when the blood-sugar is about ·05 per cent., but it is at about ·07 per cent. that the patient himself becomes conscious of some anxiety, with signs perhaps of a definite neurosis with loss of emotional control which has been likened to those symptoms produced by shell-shock. Vasomotor phenomena, such as pallor or flushing, sometimes one after the other, are seen, and usually profuse sweating as well. Sooner or later it is likely that all patients will ex-

perience hypoglycæmic reactions. The most likely occasion is when changing from one preparation of insulin to another, and in America a common method is to begin a new extract before the old one is finished and mix them in varying proportions, gradually increasing the new extract until its pharmacological assay is fairly well known. It is really beneficial for the patient to experience one reaction at least, for then he will quickly recognise premonitory symptoms of others, which would otherwise have been unnoticed until more definite signs of a reaction. Several phenomena have been noticed in such reactions, such as indefinable fear, nervousness, fatigue, hyperexcitability, slight inco-ordination, difficulty of articulation, and even disorientation. These symptoms may culminate in convulsions; 20 minims of adrenalin is given, then sugar by mouth or nasal tube, or 6 per cent. glucose is given intravenously in coma, but when slight symptoms only are noticed, a cup of tea with sugar will be enough to make the signs of a reaction disappear, or even a few biscuits. Recovery is directly dependent on rise in blood-sugar level. Pituitary extract is said to produce a greater effect than adrenalin, but the latter appears to be in general use.

Metabolism.—Diabetes, as we have noticed, is characterised by incomplete carbohydrate metabolism. The complete oxidation of fat is dependent on the presence of carbohydrate in the tissues. When the tissues are deprived of carbohydrate, for example, in starvation, on a carbohydrate-free diet or in diseases of disordered metabolism, the oxidation of fat is incomplete and intermediate metabolic products are formed in the tissues and pass into the blood and urine. The relationship of the acetone bodies is shown in Fig. 10.

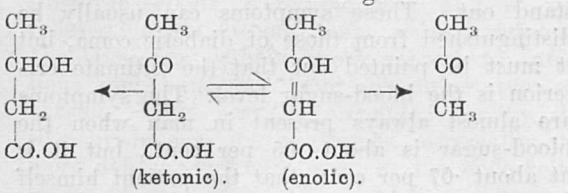


FIG. 10.—Showing constitutional relationship between acetone bodies found in quantity in abnormal fat metabolism.

β-oxybutyric acid and aceto-acetic acid have been held to be formed in normal fat metabolism. This is the view of Hurtley,[15] and in abnormal metabolism he imagined that the increased protein and fat oxidation accounted for the increase in acetone bodies, which are difficult to katabolise completely in quantity. A later theory bearing out the conditions accompanying normal and abnormal metabolism is that of Poulton[9] who suggested that when the available store of carbohydrate is used up in starvation, or when carbohydrate cannot be used, as in diabetes, carbohydrate is formed again partly from protein and partly from fat. The formation of carbohydrate from fat, which is always supposed to occur when carbohydrate is lacking in the diet or is not available, is accompanied by the formation of aceto-acetic acid. That is, the body *must* have carbohydrate, even at the price of the simultaneous formation of toxic substances. The change of fat to carbohydrate, two apparently very different chemical bodies is assumed to occur in the germination of fatty seeds, where starch and cellulose are formed from fat, and also in certain hibernating mammals, as Pembrey[16] has shown, in which the R.Q. falls to about ·3. It is pointed out that such changes may represent in an exaggerated manner differences in metabolism present in non-hibernating animals.

The two products of carbohydrate metabolism capable of quantitative determination are blood-sugar and the glycogen content of the liver. The blood-sugar in diabetes increases and the glycogen decreases, and insulin causes them to be restored to, or beyond, their normal levels. The formation of glycogen is probably the chief factor in preventing hyperglycæmia. A progressive decrease in blood-sugar follows hepatectomy, and the liver has been proved to be unnecessary for the hypoglycæmic action of insulin, but it is essential for the permanent recovery of the normal blood-sugar level. It is assumed that when the blood-sugar is low after insulin treatment, it is restored to a higher level at the expense of the glycogen stores of the liver, which the insulin has previously caused to increase. Apparently the first effect of insulin is to cause storage of glucose. Later the glucose may in part be consumed.

The onset of the hyperglycæmic reaction in rabbits has been shown to be influenced by the amount of glycogen in the liver, since the fall of blood-sugar is greater or occurs earlier in rabbits which have been starved and injected with phloridzin and adrenalin to ensure depletion of the carbohydrate stores, than in glycogen-rich animals. After glucose injec-

tion the blood-sugar rises much more rapidly in glycogen-rich animals. Insulin would appear therefore to lower the systemic blood-sugar by causing increased disappearance of glucose in the muscles; and the splitting of glycogen in the liver (to make up the lost blood-sugar) would be slower in starved animals than in those which had been fed. Outside the body, glycogen seems to be unaffected by insulin and by blood containing injected insulin. The rate of breaking down of glycogen (glycolysis) in incubated liver also seems to be uninfluenced by addition of insulin. Thus, experiments in vitro have been disappointing and have failed to throw any light on this problem of the mode of action of insulin, but insulin undoubtedly passes into the tissue cells from the blood and appears to set up in them a process that leads to the disappearance of sugar and creates a sugar-vacuum there. In a hypoglycæmic reaction sugar is withdrawn from the blood more rapidly than the supply can be replenished. Much attention has been paid to an intriguing theory of Winter and Smith,[17] hinted at before by many chemists, that glucose is transformed in the cells into a highly reactive variety, arbitrarily named γ-glucose, as a preliminary step to its utilisation in the tissues, and insulin is said to activate a postulated enzyme responsible for that change. This will be dealt with in the section on γ-sugars. Glucose and mannose are the only sugars which can restore animals with hypoglycæmic coma. Fructose, galactose, and maltose give a slight improvement. Sucrose and lactose have no effect. These last two sugars if injected into normal blood, are excreted unchanged.

(To be continued.)

Porcelain Inlays.

MR. President and Gentlemen,—It will be my pleasure to-night to read before you a paper on "Porcelain Inlays." This is too large a subject to treat fully in one paper, so, as a compromise, I have dealt rather more with the theoretical side of the subject, and have endeavoured to lay a foundation upon which to build the discussion which is to follow, hoping that you will bring out the points of fine technique, telling us of your successes, whispering of your failures.

Porcelain Inlays,—let us first make quite sure that we understand what porcelain is.

This is not a chemical compound, nor even a homogenous mixture, it is a solid mass, not unlike glass, composed of a frame work of grains cemented together by a relatively more fusible matrix substance. The grains are of a silicious nature, one silicious substances held together by a more readily fusible silicate.

Each manufacturer keeps the composition of his porcelain body a secret, but it may be taken that the higher fusing grains are of quartz and kaolin, and those of the relatively low fusing body to be in the main "felspar" which owes its fusibility to the alkali in it,—the higher the percentage of alkali, the lower is the fusibility of the body.

Porcelain is put on to the market in the form of a fine, comparatively, white powder, there are generally two kinds of porcelain bodies, known as a high fusing body, and a low fusing body—but these terms are merely of relative value.

The following list may give us some idea of the temperature at which bodies fuse:—

Dazling white heat 2,600° F. Parker's body is fusible at 1,420° C.

White heat 2,400° F. Dental Man. Co. foundation 1,260° C.

Orange yellow heat 2,200° F. Dental Man. Co. high fusing 1,176° C.; S.S.W. high fusing 1,150° C. approximate.

Orange heat 1,900° F. Gold melts S.S.W. medium 1,065° C.; Ash's high fusing 1,035° C.

Bright red heat 1,700° F. Ash's low fusing 850°—900° C.

It may be generally taken that the higher the fusing point of the body, the stronger is that body.

When porcelain powder is tipped out of the containing bottle it contains 30 per cent. by bulk of air, and may be likened to a cart-load of coloured stone, peculiar to the floors of this Hospital, and with which we are so well acquainted, the interspaces caused by the irregularity of form, naturally being occupied by air.

The strength of a porcelain is dependent upon the density of that body, it is, therefore, desirable that we should pack as many grains of porcelain, in a given area, as possible. This end may be gained by mixing our powder with water, and by applying vibration, owing to the density of the grains, they will sink to the bottom and pack themselves together, as a bricklayer would lay his bricks, the excess of water originally occupying the interspaces rising to the surface. By this means a great deal of the porosity will be obliterated, but by no means all.

If the mass so treated be now dried, the following changes will be observed:—

The mass will be seen to turn a dead white, and if fingered will crumble like chalk. If the mass, untampered with, is subjected to a still higher temperature, it will be seen to regain a semitranslucency and to have undergone a considerable reduction in volume.

This reduction in volume is due to the commencement of the fusion of the cementing substance, the

particles of the infusible body settling themselves closer together, with the expulsion of the air through the still porous mass.

If the body is now allowed to cool down, the senitranslucency still remains, the surface is rough, a coherent mass is formed, which can be crushed between the fingers, and filed with the aid of a metal file. At this stage the mass is said to have reached the stage of "biscuiting." If the heat is increased, a further contraction takes place and a shrinkage of nearly one third of the initial bulk ensues, this is termed "high biscuiting."

To you this term "biscuiting" means little, to me it conveys less—but, as in Golf, to play properly one must talk of divts, mashies, snookers and stymies, so in porcelain one must talk of biscuiting. But, perhaps, for our Surgeon Demonstrator professional nomenclature is modified by local environment.

A continuation of this heat, or a slight rise in temperature will produce an even, smooth surface, very similar to the surface of enamel. At this stage the porcelain is at its maximum strength and density, and in this condition the porcelain is said to be "glazed," and to produce a body of this character is the desire of all manipulators in porcelain.

If the porcelain be subjected to a still higher temperature, there will be a loss of colour, a great reduction in strength with loss of original shape, the porcelain finally flowing, leaving the operator with a liquid "glass."

Porcelain Inlays.—We have now some idea of the material with which our inlay is to be made, but before we go on to the finer points of technique, let us refresh our memories on the points which constitute an inlay.

An inlay is a filling, built up outside the mouth, and is inserted into the cavity for which it was made, the filling being inserted as a completed whole.

An inlay is kept in place by an oxyphosphate cement. An inlay, therefore, consists of two parts, the inlay itself, whether of gold, acolite or porcelain, and an adhesive cement, the two together being called a "composite" filling.

We have seen that an inlay is inserted as a whole, the cavity which is going to receive the inlay must therefore be devoid of all undercuts, as these would make the withdrawal of the pattern or matrix an impossibility, and without a pattern or matrix the construction of inlays is incompatible.

Owing to the fact that inlays as a class are retained in position by an adhesive cement, there is of necessity, on the free surface of a tooth restored with a composite filling, a fine line of adhesive cement between the two adjacent surfaces of tooth enamel, and inlay material. Owing to the wasting of the adhesive cement, when in contact with the saliva of the mouth, this line or margin of cement will be the vulnerable point of the filling.

Since this line of cement is the objection to inlays, let us see the minimum to which it can be reduced.

Supposing the inlay to be a perfect fit, and the surfaces of both tooth and inlay to be in absolute contact when the inlay is inserted and fixed with an adhesive cement, the surfaces are separated by at least the size of the grains constituting the cement. It has been calculated that the minimum to which the size of the constituting grains can be reduced is one thousandth of an inch, thus permitting some of the organisms found in the mouth to enter the breach twenty abreast.

Before we can discuss the merits of porcelain as a filling material, let us discuss the "points, or requirements for an *ideal* filling material."

The first, and foremost requirement is that the filling should have no injurious effect on the pulp of the tooth, and should in no way endanger the life of so important a structure, as without which, it is being daily brought home to us, the maintenance of teeth in the head is but short.

Not only must the filling be free from all harmful effects on the pulp, but any lining, or composite filling must also be free from ill effects. It is well known that all synthetic fillings or rather translucent cements must all be lined with osteo-cement, to prevent the arsenic present in such fillings from reaching the pulp and causing the subsequent destruction of the life of the tooth.

No filling must form soluble salts with the saliva, which in any way may be injurious to the general health of the patient.

It is preferable that the filling material should not stain the tooth substance. In molar teeth, and in teeth hidden from view owing to their position in the mouth, this is not of very great importance, and teeth filled to-day with copper amalgam are stained black, and teeth filled with amalgam containing cadmium are stained a bright yellow or orange, due to the combination of hydrogen sulphide, which is present in the mouth, combining with cadmium and forming cadmium sulphide. If such fillings were employed in front teeth they would be most unsightly and would not find favour among our patients, for whom we cater.

Fillings which are intended to be permanent must withstand the forces of mastication which may be as high as two hundred pounds per square inch. They require good edge strength, tensile strength, and must not "flaw" when under strain, as is the tendency with copper amalgams when built up into contour. There must be no flaking, small pieces of the filling coming away, or wasting, so commonly seen in synthetic fillings poorly executed or when on the incisive edge.

There should be a coefficient of expansion of the filling as nearly equal to that of the tooth substance, otherwise a filling, contained in a five walled cavity, and having a high coefficient of expansion, when heated, would be liable to split the tooth, and the last state of that tooth would be worse than the first, and inversely, when the tooth is cooled the filling would contract away from the walls, allowing bacteria to enter the crevices thus formed.

It is desirable that the filling should be a poor conductor of heat, otherwise, unless a lining is inserted, the filling material will conduct thermal changes to the pulp, which is sufficient to ruin an otherwise perfectly executed filling.

Both from the point of view of the patient, and from that of the operator, it is very convenient, if the material with which the cavity is to be filled, is easily manipulated. It is desirable that in restoring teeth, not only shall the form and function of the tooth be restored, but also the colour.

What restorer of ancient marbles is content to restore in form only the damaged features of a

masterpiece? Would he be content to replace the damaged nose with terra-cotta?

Let us now compare the properties of porcelain inlays with those of an ideal filling material. The porcelain part of the filling almost comes up to the requirements of an ideal filling with exception to the lack of tensile strength and to the difficulty of manipulation.

Porcelain has no harmful effect on the pulp neither has the adhesive cement used for retentive purposes.

Porcelain forms no harmful salts with the saliva, being a most inactive substance, it is not acted on by any of the common acids, or mixtures of the same, but is readily etched when treated with hydrofluoric acid.

Inlays retain a good surface polish, with the exception of certain low fusing bodies which tend to become slightly etched or roughened with age.

It does not stain the tooth substance, owing to the inactive nature of the filling material.

One of the great draw backs to porcelain, especially when employed in tip restoration, is the comparatively low tensile strength and the tendency for the porcelain to chip when in veneers and sharp cutting edges. In the mass, Le Cron has shown that it offers a considerable resistance to a crushing force, and may vary from seven to twenty tons to the square inch.

Moh has devised a scale of hardness for the use of minerals. In this scale, talc is given the first place and diamond the tenth and last place. Talc is least hard of all the minerals, and can be scratched by all the remaining minerals, diamond scratching all the minerals. In this table porcelain takes the sixth place.

Porcelain has a low coefficient of expansion for heat and a low conductivity, and it is suggested that for these reasons the cement joint lasts so well.

The second drawback to porcelain for a filling material is the extreme difficulty in the manipultion and concentrated attention and care required, together with a somewhat lengthy technique.

Colour.—Porcelain bodies are not only divided into a high and low fusing body, but also are divided up according to the shade of the finished article. Ash's supply roughly sixty different shades of porcelain, and these again can be mixed by the operator into as many different shades again.

The colouring materials used by the manufacturers are inorganic salts:—

Titanium oxide is used for producing the yellow colour of enamel, together with the cream-yellow colour of the dentine.

Cobalt oxide for producing the blue tints of enamel.

Ferric oxide is used for producing grey tints.

Platinum sponge is also used for producing grey tints.

Gold, in the form of purple of cassius, is used to give the pink tints to teeth, together with the reddish brown in gumsections.

Purple of cassius is a mixture of stannus chloride and dilute neutral gold chloride in the presence of stannic chloride.

With such a wide choice of colours and shades in experienced hands, a tooth can be matched to perfection.

Methods of making porcelain inlays.—There are four main types of inlays, differentiated by the modes of preparation, they consist of:—

Cutting a cavity, with the requirements of an inlay cavity, taking a matrix to fit the cavity, filling the matrix with porcelain body, building the body up into correct contour, and baking.

The cutting of porcelain to fit an already prepared cavity. This is the old method of cutting, or grinding of a porcelain tooth to fit a prepared cavity.

The cutting of cavities to fit ready made porcelain inlays. This is the Dale's method, a cavity is prepared with a circular burr, circular inlays are supplied, corresponding to the size of the burrs. A similar inlay is the Havard inlay. Tapering rods, with a dovetail form in cross-section, used in interstitial cavities, and inserted from the palatine aspect.

The Cast method: a cavity is prepared, with square edges, and conforming to the general requirements for an inlay cavity. A wax pattern is taken, as for a gold inlay, invested, in a special investment, pieces of porcelain are brought to a liquid state by means of a blow pipe, the inlay is cast with the compressed air outfit. Inlays cast in this manner are quite serviceable. The drawback to such inlays is that in one inlay there can only be one colour.

The cavity preparation for a porcelain inlay must necessarily be influenced by the way in which the inlay is to be made.

Let us consider the cavity preparation for an inlay prepared in the first way, that is, the taking of a matrix and the building of an inlay to fit a specially prepared cavity, it is this type of inlay which is most commonly used to-day.

The general rules for cavity preparation must be observed. All carious enamel must be removed, all carious dentine must be excavated, and if necessary, drilled away. If there is still hard carious dentine in the floor of the cavity, the removal of which would endanger the life of the pulp, it should be left. If the pulp is obviously involved in the carious process, it should be removed and the canal and pulp chamber filled.

The special treatment of cavities for the reception of porcelain inlays.—Good access to the cavity may be obtained by the removal of the labial surface of the tooth. The excellent colour of the filling material making up for the sacrifice of the portion of labial surface. In fact, the nearer the inlay reches the mid line of the tooth the easier is it to match the colour..

There must be no undercuts, or if so they must be filled up with cement, or else the withdrawal of the matrix will be an impossibility.

The general outline of the cavity must be as square as possible the labial surface may be an arc of a large circle.

The edges must be quite square, and at right angles to the surface, along the line of cleavage for the enamel prisms.

The walls and floor must meet one another at as near a right angle as is possible to obtain, thus ensuring good strong edges, no veneers to be easily fractured. The operator should bear in mind that the larger the bulbs of porcelain the stronger will be the inlay.

The cavity should be of a definite shape, so that when finished there is no doubt as to which way the inlay shall "go in."

The retention is gained by grooving the inlay and grooving the corresponding part of the cavity, cement backing the two together.

Special retention may be necessary for inlays involving the biting surface of incisor teeth. When cutting the cavity it should be made so that the inlay matrix is withdrawn in the opposite direction to the dislodging force of mastication.

Shoulders or dovetails may be of advantage, situated in the palatine surfaces of upper incisors, with the face or surface at right angles to the dislodging force. Platinum posts fitting into the dentine, parallel with the pulp may be of great assistance to the retention of the inlay, and in tip restorations are the only means of retention.

The tips in the dentine are made by first injecting into the patient in the region of the apex of the tooth to be restored, a one and a half per cent. solution of novocain. Three quarters of a syringe full injected slowly will be more than sufficient for a complete anæsthesia. A small inverted cone or rose head to start the pit will be found most suitable, followed by a straight fissure burr, as nearly the same diameter as the platinum post which is going to be inserted. The pit is drilled to the depth of one or two millimeters, except when a post is being sunk between the two cornua of a central incisor, great care and judgement must be exercised lest the operator should find his burr in the pulp chamber. If the tooth is dead, that is with no pulp, a platinum post may be placed in the root canal, and with one end slightly curved so as to occupy the centre of the porcelain inlay, unless a post is well surrounded with porcelain the post will break the porcelain, and come out.

The cavity now being ready, a matrix is prepared. A matrix will give us the internal form of the cavity, together with the direction of the free surfaces bordering the cavity.

The requirements of a matrix are that the metal of which they are made will have a sufficiently high melting point to withstand the temperature required to fuse the porcelain body. The metal usually employed is platinum, having a melting point of 1,710° C. Gold may also be used for bodies fusing below 1,065°C., the melting point of gold.

The metals for matrices must be easily malleable and must conform to the smallest feature of the cavity. The fine technique of porcelain inlays.—The tooth, being deemed suitable for an inlay, has the caries removed if it is attacked by such, and a suitable cavity prepared, if the loss of tooth substance is due to trauma, cavity preparation only is necessary.

Platinum foil of one thousanth of an inch thickness is taken, well annealed, and is placed over the cavity when cold. Cotton wool moistened is held in tweezers, and the platinum is worked into the deepest part of the cavity by means of the cotton wool, which acts as a pad, and with care does not split the matrix metal. When the foil is fitting fairly well in the cavity, the cotton wool is held in the cavity by the tweezers and the unoccupied hand, holding a small plastic instrument, burnishes the platinum over the edges, this takes some time. When this is roughly accomplished, the cavity is plugged with cotton wool, leaving the edges visible. A strip of rubber dam is stretched tightly over the cavity. The platinum is burnished correctly over the edges by burnishing the stretched rubber dam, through which the force is transmitted. The object of the dam is to hold the matrix still, and in one position, while burnishing is taking place, otherwise while burnishing one side the other will tend to rise, and a correct impression is not obtained. In place of moistened cotton wool, a substance called "Amidon" may be used dry, it is a very resilient substance, and is much quicker in its work.

If a post is required it is pushed through the foil, where a slight depression will be seen, corresponding to the pit which is to receive the post. The post is held in place by a little sticky wax, which is melted and surrounds the portion of the post protruding into the cavity.

Some people recommend camphor to hold the post in position, this, when in experienced hands is as good as wax, but to the inexperienced presents many pitfalls.

This mode of taking a matrix is known as the direct method, all the work being done in the patient's presence. The indirect method consists of taking an impression of the prepared cavity,—a small celluloid band is placed around the tooth, Kerr's impression material is forced into the cavity and is compressed against the celluloid ring. The model is cast in osteo-cement, and the matrix fitted to this outside the mouth. The edges are finally fitted when the patient is next seen.

If the indirect method is used and a post is present, the post is placed in position, the impression taken and on removing, the post will be withdrawn in the impression and before casting the post must have a little pink wax melted round it to facilitate the withdrawal from the osteo model when cast. This is easily accomplished by heating the wax a little. It will melt leaving a hole larger in diameter than the pin, the withdrawal of which is but the work of a second.

The inlay matrix may now be withdrawn. If there is any fear of the matrix buckling or warping during the removal from the cavity, the matrix may be filled with inlay wax, or compressed camphor. Inlay matrices with posts must be invested in, either No. 1 investment or in a mixture of three parts of silica and one part of plaster. A small nickel tray or boat is filled with the investment, the posted matrix is held in tweezers, and investment is painted with a brush around the post and tooth surface of the matrix, it is now placed in the still liquid investment contained in the tray, it must be invested with care, all the edges of the matrix must be visible. No investment must be allowed to encroach upon them.

The investment is allowed to set and the whole is placed near the open door of an electric furnace to dry, at the same time the camphor volatalizes or if sticky wax has been used, the wax will melt, be absorbed by the investment, as the heat is increased the investment containing the wax, turns a brown, and finally black, but as the heat increases the investment regains its original colour, the wax being burnt.

If camphor has been used the platinum is bright and clean, if wax has been used, it is usually clean and bright, but as a precautionary step, when cool, the matrix should be painted over with a little alcohol.

If no pin or post has been used, it is not necessary to invest the matrix, although some prefer so to do.

The colour of the tooth to be restored should now be matched, this should always be done in natural light, and in a good light.

The companies who make the porcelain bodies also supply shade guides. These are glazed portions of the body and are numbered according to the corresponding numbers on the bottle containing that particular shade of body.

The general rule for matching colours is to choose a shade a little darker than the tooth to be restored, as in baking, the body has a tendency to become lighter. In particular positions, special care is required in matching colours. Interstitial cavities in front teeth, which do not come far forwards on to the labial surfaces appear darker.

The light supplied to a front tooth comes from above and in front. The colour of the tooth consequently changes with the movement of the lip.

In matching the colour for a tip restoration this should be borne in mind and the colour should be taken from the appearance of the tooth when the tip is in the position in which it is most commonly noticed. One inlay may require as many as three different shades.

Our different shades of body are put out into different watch glasses, or on to a slab providing that they do not, by mischance, become mixed. The body is mixed with distilled water and the floor of the matrix is covered with the body, to which vibration is applied in order to consolidate the grains of porcelain. Dry powder is now added, vibration is again applied, until moisture appears on the surface.

We have already seen that when porcelain is baked there is a reduction in volume, the porcelain contracting away from the sides towards the centre of the mass. Picture to yourselves what would happen if a length of saliva ejector tubing were held with one end in one hand and the other end in the remaining hand, supposing the tubing to be stretched and to be released from both hands. The tubing would contract towards the centre. Let the rubber tubing be stretched again, with the release of the left hand the tubing will contract towards the right hand which is still holding it. Let us once more stretch the rubber tubing and let it be cut in the centre, the cut ends will contract towards the held ends. This last is the principle on which the contraction of porcelain is governed.

A crucial incision is made in the porcelain body before baking, through the whole depth of the mass until the matrix is reached. Owing to surface tension the body is held at the edges and contracts away from the centre when biscuited, more body is placed in the crevices and another baking follows.

It is not always easy to judge the temperature of the furnace, and when the body has reached the stage of biscuiting. For this purpose pyrometers are used. A very useful type of pyrometer is that made by Le Cron. This consists of a bead of gold, supported by a fireclay stand. The bead of gold fits into a hole in the stand similar to an egg in an eggcup. When the melting point of the gold is reached the bead melts and falls through the aperture.

Gold alloys of different melting points are used for each porcelain body, the melting point of the gold alloy corresponding to the temperature at which the porcelain body fuses.

We have now reached the stage where the floor of our matrix has been covered with porcelain and the contraction of the body away from the edges prevented. The matrix is removed from the furnace, allowed to cool and is tried into the cavity and is finally fitted. A rubber dam is stretched over the matrix and the edges are burnished down to a dead fit. The matrix is removed from the mouth, the porcelain body is built up flush with the edges, but must never be allowed to go over or beyond the edges.

If a freehand contour has to be built up the porcelain body, when consolidated by vibration, is carved up with a Le Cron spatular, the subsequent shape of the inlay being dependent upon the knowledge of dental anatomy and on the artistic temperament possessed by the operator.

The inlay, if of desired shape and colour, is heated gently lest the rapid volatalisation of moisture should lead to a fracture of a portion of the hard attained contour.

The inlay is brought to a "biscuit" and finally "glazed." When cool, the platinum matrix is peeled off in one or more pieces, the platinum being pulled by means of tweezers, away from the edges towards the centre, as in this way there is less likelihood of damaging the edges.

Once the matrix has been removed, the inlay must on no account be re-baked.

The fixing of porcelain inlays.—Over the edges of our inlay wax is melted, and over the whole inlay with the exception of the fitting surface. The fitting surface is etched with hydrofluoric acid. A white precipitate is formed on the fitting surface, under which the surface can be seen to be etched. The hydrofluoric acid is washed off, the wax removed by heating gently in chloroform or any solvent of wax. The inlay is grooved on the fitting surface, with the aid of a diamond disc, and the cavity correspondingly grooved with a small burr.

The tooth is isolated with a rubber dam, ostocement is mixed a little thinner than is usually used first the inlay is smeared with the cement and then the cavity. The inlay is then put into place, care being taken that the inlay is thrust "well home." Some advocate the binding round of floss silk and ligaturing to make sure of the inlay going into its correct position.

When the cement is set the rough excess is removed, the cement at the joint is coated with a little wax, which together with the excess of cement is removed at a subsequent visit. Some operators even go so far as to send their patients away with the floss silk ligatures still in place.

In the reader's mind there are five additional golden rules for the success of "Porcelain Inlays," and, for what they are worth, he gives them to you.

Never make a porcelain inlay unless you put your whole heart into it.

Never fix a porcelain inlay with which you are not satisfied.

To make an inlay with insufficient retention is to build a house on sand. You get tired of refixing them.

A bad tree bringeth not forth good fruit, neither can a good inlay come from a bad matrix.

Do not postpone the making of your inlays until a fortnight before your final examination, but start them as soon as possible, become proficient and enjoy them.

A Psychological Problem.

IT may perhaps be of interest to some of the future neurologists in the Hospital to consider the following dream, dreamt by myself last night. The determinants of the previous day, as far as I am aware, were three:—

1. Walking down the incline leading from the Colonnade towards the War Memorial gate, I slipped and bruised my back.
2. I attended a lecture at 12 o'clock on Pathology.
3. I left a counterpane lying unadjusted on a patient's bed after doing a dressing in one of the Surgical Wards. There followed a mild explosion from which I emerged the worse.

Dream.—I am sitting in the Pathological Lecture Room listening to a lecture. The atmosphere is stuffy and oppressive. Further, I find the terminology somewhat bewildering. "In chronic lymphatic leukæmia," the lecturer says, "you get lymphoid infiltration of the tissues with lymphocytes. In myeloid leukæmia you get myelogenous infiltration with myelomatophytes and myeloclasts. When there are also tumours of the myeloid tissue you get gigantotrophoblasts, myelosarcomatoblasts and pseudo hypertrophochlorokaryosomes. But when you get tumour like swellings of the lymph glands together with nodules in the spleen, then, and only then, do you get"—here he paused to blow his nose and clear his throat,—"do you get lymphogranulomatomes, chromolithopachidermatosomes and polychromatic leptinucleoblastophylls." "My hat what magnificent names" I soliloquize. "I wonder if he expects us to remember them!"

The lecturer stops and looks at the class with an expression of placid happiness. The light is reflected on his tortoiseshell spectacles, and his eyes appear as sightless, shining discs. There is a silence. Amid the silence there suddenly floats down from the ceiling, lightly, rocking from side to side as it falls, like an autumnal leaf, a red biconcave disc. I look up, and observe with some surprise that the electric lights in the ceiling that shine down upon the lecturer seem to be proliferating embryos. They are, in fact, producing erythrocytes by transverse strobilation like the sessile generation of the Scyphozoan Aurelia. Biconcave discs begin falling see-saw like through the air, which becomes thick with them as with snow flakes. Suddenly one alights on the lecturer's head, like a crown. It proliferates laurel leaves, and an expression of ineffable beatitude, of ecstatic triumph, now possesses his countenance. He smiles the smile of a Cæsar, crowned. It seems as if he had won the Nobel Peace Prize.

The cascade of biconcave discs continues beautifully to fall, and the floor becomes littered with them. That instrument, worked during lectures by Sutton, that looks and functions like a magic lantern, begins. like an organ, to play soft music, giving forth deep, soul-satisfying, yet elusive harmonies. The floor is now covered—

> "Thick as autumnal leaves
> That strew the floor
> In Stokes' lecture room."

This line, always full of significance, occurring to me now, generates a sense of profound inner concord and well-being; of *εὐφορία* and *εὐδχιμοτία*. This feeling is sustained for several moments. But now, almost without one's being aware of it, the rich harmonies are disturbed by a restless, recurrent theme beginning in the bass, first suggested by the wood wind, then amplified by the horns, and then sounded by both together. I experience a disquieting sense of foreboding. I notice that the biconcave discs are becoming eccentric in shape. "Oh dear, oh dear, we are somehow getting anæmic" I feel. I look at the lecturer. He still smiles, lost in contemplation, but some half-dozen discs have now fallen upon the original crown, and he looks like a conjuror balancing a pile of red plates on his head, or like a stick transfixing quoits. He wears, in fact, an erythrocytic top hat. Suddenly, dove-like, a poikilocyte descends upon the top-most disc and balances there like a spinning top. The rain diminishes. The electric lights in the roof are now proliferating large nucleated cells, more slowly. Massive cells, like many-hued soup plates, begin to float downwards, biconvex, gravid with plump deep-tinted nuclei. The magic lantern is working up an orchestral climax. The electric lights suddenly stop strobilating, and are now all co-operating to produce an enormous cell, with a huge blue nucleus, like a smouldering plum pudding. "That must be a lymphoidocyte, the father of all cells, a cell ancestral like Adam," I say to myself. This huge body now breaks loose and falls flatly rotating like a catharine wheel. It knocks the poikilocyte off the lecturer's top hat, and deposits its nucleus there instead. The nucleus glows, mysteriously, softly, with an irridescent blue flame. The enucleated cytoplasmic ring falls, and encircles the lecturer's head like a shining halo. He now looks like a Saint. By my side is standing a clean-shaven, fair-haired figure in a khaki coat. He is scrutinising me. "What is that cell?" he asks in a knell like voice. The reply seems too ludicrously obvious. The question is hardly worth asking. Any nincompoop would know.

"A Corona Radiata of course," I answer.

The magic lantern crashes like a thunderclap. The plum pudding shoots into the air like a meteor. The lecturer explodes like a shell. The khaki-coated figure becomes giant-like, immense, impending like a beetling crag. The fallen discs leap into the air and jig before my eyes like confetti. I feel smaller than a blood-platelet, and roll over unconscious.

Abruptly the scene changes. I come to myself lying on the floor in a Surgical Ward. The floor is on a slope, and the walls are transparent. The beds seem to have disappeared. The room is tube-like, elongated, and shaped, in transverse section like the tunnel of an Underground. The floor is seething with a mass of broken bottles and their contents. All the bottles in the medicine cupboard. Every bottle in the ward, smashed to smithereens—dark blue, octagonal bottles with red labels, round blue bottles with red labels, Winchesters of Peroxide and Lysol soap, of Eusol and Carbolic; cone shaped flasks of Saline, all lying in small fragments in a weltering yellow picricky syrup. The air is clear, penetrating and keen, as on a mountain top. Quite sterile.

Facing me, suspended in mid-air, at the bottom of the ward, is the nucleus of the lymphoidocyte, an orb of blue, like one of the swathed della Robbia babies in the Piazza Annunziata in Florence.

"What an extraordinary place to be in! What has happened to the Ward? What is all this litter?" I ask myself. It slowly dawns upon me that this chaos of broken glass, of red and blue and yellow, must be a conversion product of the previous rain of discs, and that the Ward is shaped like a test-tube. I am, in fact, lying in a sloped tube of blood-agar, basking in a pabulum of polymorphs. Not very nutrient to-day. Extraordinary. I am sure that Mr. Ernest Jones would say that I am dreaming a rebirth, or a parturition dream. Suddenly I become aware that the blue nucleus of the lymphoidocyte is moving. It descends to the ground, and changes its outline. And as it gradually assumes the shape of a blue-clad Sister I am engulfed in the hideous, unspeakable realisation that *I alone* am responsible for the breakage, and that I am imprisoned, helpless, like a Daniel, closetted hermetically in a trap with a carnivore more dreadful than a thousand Ethiopian lions.

The Sister approaches me slowly, step by step, like a bird of prey. With each slow step, fixing me with baleful eye, her head comes forward with her foot, like that of a Harpy eagle. I shrink to the dimensions of an earth worm. She is now standing over me, and I feel as a maggot probably does when about to be devoured by a robust resplendent and exceedingly voracious chicken. I summon up all my courage and shout up at her:

"Go away. You are only a nucleus. You can't eat *me*."

Suddenly she is seized round the waist as by an invisible vice, and lifted into the air. "What a relief," I say to myself. She is drawn up to the concave ceiling, and held there struggling like a fly caught in adhesive fly paper. She becomes flattened out and changes into a Mosaic of an Egyptian Hawk-headed Goddess, painted upon the ceiling. I know I am safe. The hawk-head, seen by me in profile, still retains its autonomy, and the aquiline beak, and the eye work synchronously in movements expressing contempt and hate. Then her body becomes diffluent, and merges into a blue haze which resolves itself into characters written in blue skin pencil on the glass and seen by me as, B.C.G. I become aware of vast human faces, like the faces of cliffs, distorted by the concave glass, peering down at me. It suddenly dawns upon me what these characters signify when seen from the outside. I become acutely aware of the acidity of the medium in which I find myself with its ingredients of picric and carbolic. The three letters are allusive, more, they are grossly and offensively personal, and evidently represent Sister's opinion of me.

My pride is wounded, my self-respect deeply mortified. I suddenly conceive a violent pain right down my back. Better to have been devoured than thus insulted, labelled and exposed to the public gaze! Better death, than such abject humiliation!

Being of the male sex I become an inmate of Luke Ward. I am carried there on a stretcher. The door is opened and I behold standing facing me with folded arms a nurse. She is young and pink-cheeked with a contralto voice, hair attractively arranged "en petites griffes" on her forehead, and a stripe on either forearm. She nods her head slowly at me with ostentatious disapproval.

"God bless my soul," she says, "what are we going to have sent us here next! God bless my soul. God bless my soul." My feelings are again hurt.

"I am sure he would never dream of doing anything else to it, nurse," I reply, "but at the same time let us agree to admire Mr. Bonar together quietly without promiscuously borrowing his sometimes somewhat stormy phraseology."

She pays not the least attention to my remark, but turns her back, and walks away down the ward repeating to herself, like an incantation, that familiar, but ever-spurring formula. I am put to bed and left alone. My back is excessively painful. I have a continuous burning ache from my heels up to the base of my skull. "What on earth can it be?" I wonder to myself. "I wonder what they will diagnose in the Neurological Department!" A horrible thought strikes me, "I know. They will diagnose it as gummatous pachymeningitis, and say that my dura mater is compressing my posterior nerve roots. None of my assurances will be of the least avail. They make it a point of honour in the Neurological Department to disbelieve all one says." A more soothing thought occurs to me. "Perhaps, though, if they are kind, they may let me off with spondylitis deformans of my lumbar vertebræ. I wonder if my lumbar spines separate as I bend forward. I hope not."

I sit up and begin to bend and straighten my back feeling my lumbar spines with my left hand. As I do so I become aware of a tall, white-clad figure standing at the foot of my bed, contemplating me with benevolent, appreciative acknowledgement, evidently under the impression that I am bowing to him. An incredibly kind expression animates his face. I am profoundly moved. He comes to my bedside, pats my head, and looking at me over his semilunar spectacles says:

"Well, good chap, how are you feeling now?"

The pain instantly leaves me.

"Deeply touched," I reply, "at being addressed for the first time in this hospital to-day with consideration and civility."

The figure, the ward, everything fades. I sink into a peaceful dreamless slumber, and am called half-an-hour afterwards.

ASSIDUOUS READER.

Appointment.

Alan H. Todd, M.S. Lond., F.R.C.S. Eng., to be Consultant in Orthopædic Surgery for the Royal Air Force.

Papers by Guy's Men.

E. P. Poulton, M.D., F.R.C.P. The Use of Insulin in Private and Panel Practice.—*Brit. Med. Jour.*, 1924, i., p. 261.

Guy's Hospital Pharmacopœia.

THANKS to the kindness of Professor Boycott, formerly Professor of Pathology at Guy's, we have had given to the GAZETTE the second edition of the Guy's Hospital Pharmacopœia. The title page runs thus: Pharmacopœia in usum Nosocomii a Thomas Guy, Armigero, A.D. MDCCXXI fundati. It is dated MDCCCXXVI, and belonged to Wm. Tanner, pupil at Guy's, 1833.

PHARMACOPŒIA

IN USUM

NOSOCOMII

A

THOMA GUY, ARMIGERO,

PROPRIO SUMPTU

Ante Obitum Fundati,

ET

Maxima ex Parte Conditi:

HENRICO JACOBO CHOLMELEY, M.D.
GULIELMO BACK, M.D.
RICARDO BRIGHT, M.D.
HUJUSCE NOSOCOMII
MEDICIS,

THOMA ADDISON, M.D.
PRO-MEDICO,

ASTLEY PASTON COOPER, BARONETTO,
CHIRURGO CONSULENDO,

CAROLO ASTON KEY,
JOHANNE MORGAN,
BRANSBY BLAKE COOPER,
CHIRURGIS,

THOMA CALLAWAY,
PRO-CHIRURGO,

RICARDO STOCKER
PHARMACOPŒO.

We reproduce from it the page giving a list of the Staff; ninety-eight years ago three physicians and one assistant physician and three surgeons and one assistant surgeon, with an apothecary, looked after all the patients. The physicians, assistant physicians, surgeons, and assistant surgeons are now eighteen against eight then, but we must remember that in 1826 Hunt's House had not been built.

It will be noticed that there were not any special departments. Stocker, the Apothecary, who died in 1834, was the father of James Stocker, who followed him in the same office and was also Resident Medical Officer and Secretary of the Medical School, and it is after him that Stocker's Sign is named.

The great majority of the drugs and preparations in the Guy's Pharmacopœia of 1826 are to be found in that of to-day, which is interesting as showing that most of those selected for inclusion by our forefathers have stood the test of time. A bolus was a pharmacopœial preparation then, and a dozen drugs are directed to be given in that form, which usually had a confection for its basis. A number of drugs for external application are prescribed in the form of a ceratum which is much the same as an ointment. Cerata are still official in the United States. Eight drugs could be prescribed as an electuary, and two as an embrocation, which hardly differs from a liniment. Four fomentations and sixteen juleps were included. Boluses, electuaries and juleps have given way to improvements in pharmacy.

The chief advances in the last 98 years appear to be that now we can give drugs hypodermically; that we have many alkaloids, there is but one in the pharmacopœia of 1826, namely, quinine; in all other cases, e.g., atropine or morphine, a preparation of the plant had to be used, and this preparation could not be standardised in terms of the alkaloid, and that the following important drugs have come into use, bromides, anæsthetics, some new hypnotics, nitrites, pilocarpine, cocaine, salicylates, cod liver oil, and preparations of endocine glands.

On the other hand, acids, alkalies, aperients, bismuth, arsenic, mercury, iron, potassium iodide, opium, belladonna, digitalis, strychnine and stramonium were all in the pharmacopœia of 1826.

There were fewer addenda than we have now. There is a diet table, and one showing when medicines should be given. The whole book is in Latin; it cost five shillings.

If readers will look at the Preface of the Pharmacopœia of Guy's Hospital (1916) they will see that the Committee tried to trace former editions, but the edition we have before us shows that they have made a mistake, for the third edition, dated 1837, is given, the title page really belonging to that of the year 1826.

Sport.

Rugby Football.

Guy's v. Devonport Services.

ALMOST unfortunate break in the weather found the afternoon of February 9th raining most unpleasantly; what evil spirit pursues us this year whenever we get a good home match one knows not, but anyhow it seems advisable to get in as many home matches as possible at Honor Oak Park before Xmas instead of after. It was a great pity, because the Services were not confined to Devenport alone, but included many from Portsmouth and Royal Naval College. This strengthening was quite understood, the object being to play as many Navy men as possible as were appearing in the match against the R.A.F. so as to give the Navy team a real good practice.

This was done, as, notwithstanding the weather and what you read in the papers, it was a real good game—plenty of hard, clean football. At first we held the sailors to their own 25 and by good work on the part of our forwards pressed them severely. A good piece of passing seemed promising, but Fin-

nemore could not get past Harrison, the full back. Stoker Stabt and Lt. O'Connor led some rushes in retaliation, but they could not pass Spence, who was in great form. Our men worked back. E. E. Neser was at "stand-off" half, and he got his backs away to send Graham-Davies through; the latter passed to Fellowes-Smith and the wingman scored for Neser to goal with a very fine kick. Almost just afterwards E. R. A. George got in for the Navy, but the kick failed, we leading at half-time by 5 points to 3. The touch judge was waving his flag so excitedly when George scored, the players must have thought the ball had gone to touch.

During the second half we didn't have so much of the play, but it was a rarely well-contested game, both packs keeping up a fine pace. Gardner, the International, led the Navy pack, and Doherty played one of his best games for us. Finely too did Scholefield do, his dribbles from the Navy "25" were splendidly executed. Tregarthen was a useful forward. Altogether the pack played a much better game than the previous Wednesday showed. Meissner and Neser did quite well. The former stopped some hefty rushes. The tackling was good in places, though Graham-Davies let his man through a little too often. Just before "closing time" Steyn punted over Harrison's head and a score looked certain, but the ball just reached the boundary before Steyn's valiant plunge came off.

Guy's 5 points, Devonport Services 3 points.

Guy's Team.—P. D. B. Spence, G. Fellowes-Smith, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, W. Meissner, E. E. Neser, W. D. Doherty, B. G. Scholefield, N. M. Holloway, G. G. Cameron, G. G. T. Tregarthen, E. H. Fouraker, J. W. Schabort, W. De Wet Vorster.

A very excellent game. The XV. must keep fit. Absolute ability to stand 80 minutes of the hardest football is the one thing by which we stand the greatest chance of retaining the "*Cup*."

Guy's Hospital v. United Services.

FOR the second Saturday in succession it was our pleasant occupation to play a Service team. The Sailors, though from Portsmouth on this occasion, February 16th, were not at full strength. C. F. Halloran, the Irish International, was not available, and R. O'Conor, another good forward, was not playing. On the Wednesday the R.A.F. had played the Royal Navy, hence some of these latter had to rest.

Guy's, without their Captain again and also minus B. G. Scholefield and G. Fellowes-Smith, gained a very excellent victory and played excellent football all through, except in one department and that was in the packing of the forwards. Still, it is too late to alter that now, and so one can cease cavilling and indulge in the far pleasanter task of praising the many excellent phases of the game.

Our first score came from some good passing and G. R. Mostert, the last to receive, made straight for the line where he grounded near the corner. Good was Neser's attempt at conversion, but the posts were just too narrow. Now the Service forwards started in their well-known style and thrice reached Badenhorst. Quite safely he put away their efforts. Returning to midfield Meissner got Spence (playing at stand-off half) away and a beautifully executed movement by Graham-Davies, who gave up to Steyn nicely, allowed the latter's fine pace to do the rest. From a mark Graham-Davies tried a drop and Mostert also marked and punted high. Nobly Guy's forwards, Cameron and Doherty in the van, followed up, but the defence was safe. Again our three's got into action and this time Graham-Davies strategically punted over the opposing threes. Steyn, in full stride, got the ball and no one "saw him for dust." Steyn converted, and at half time we led by 11 points to nil.

The second half brought a well deserved try to the Sailors, and Steyn cleared the way for Graham-Davies to ground the ball by the posts and convert himself. Our final victory was therefore 16 points to 3 points.

All the back division were excellent, but Spence held a bit too long. Of the forwards one must point to very fine work by E. H. Fouraker and W. D. Doherty. Holloway, in the tight, and De Wet Vorster were useful.

Ere this is published we shall know all about the Guy's v. Bart.'s match. Pardon the personal pronoun, but I know all about it now, but as the match is not played till Thursday and this is written previous to that day, it is no good telling my readers about it till next issue.

Guy's Team.—W. Badenhorst, G. R. Mostert, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, W. Meissner, P. D. B. Spence, W. D. Doherty, E. E. Neser, E. H. Fouraker, G. G. Cameron, G. G. T. Tregarthen, W. De Wet Vorster, J. W. Schabort.

Guy's Hospital v. Plymouth Albion.

WITH not quite a full team Guy's journeyed down to Plymouth on Saturday, February 23rd, and remarkably well they did. Though defeated, it was by no means a disgrace and one thinks had we had more regular players we might have overcome these sturdy men of Plymouth.

It was with something of a shock one opened their morning sporting paper and found that Steyn had been hurt. This was the heading that met the eye, still the injury proved less severe than one thought might be the case. It was our last canter before the Semi-Final and one wanted to read that all pulled up sound.

We were six points up at half-time, both these scores had come from Steyn, one dropped goal and one try. The latter was not converted. The second half was a most dour struggle. About 10 minutes had gone when Hosking managed to plunge over for a try and this was converted. We were soon at it again and this time Fouraker did the necessary. Again no conversion. A. Wood next scored for Albion and just afterwards Jago galloped over in the corner. Hence we just lost by 11 points to 9 points.

G. Fellowes-Smith, J. G. Van Schalkwijk, W. Meissner, W. D. Doherty and E. E. Neser could not make the journey.

Guy's Team.—W. Badenhorst, G. R. Mostert, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, S. P. Meacock, P. D. B. Spence, B. G. Scholefield, N. M. Holloway, E. H. Fouraker, G. G. Cameron, De Wet Vorster, E. H. Hutchinson, J. Schabort, W. J. Radford.

Association.

Guy's Hospital v. R.E. (Chatham).

THE sun made a welcomed re-appearance for this game at Honor Oak Park on Saturday, February 16th, and the ground was in a better condition than for many weeks past.

Guy's won the toss and had the sun behind them, although facing a slight breeze.

From the kick-off the R.E.'s made headway, but offside spoilt several promising movements. Guy's then took up the running and with a little luck would have taken the lead. Couch had a golden opportunity, but handled just before netting.

The exchanges were fairly even, although splendid shots from Neely and Pickett which hit the woodwork deserved a better fate. Half-time arrived with no score.

On resuming, Guy's immediately made tracks for the visitors' goal, first Pickett, then Walters sending in shots which the visiting custodian did well to clear. Ten minutes after the restart the pressure met with its due reward. Couch, resisting the attentions of the opposing backs score from close in.

Shortly after this success, Neely "flew" past all opposition and cutting in from the wing added the second goal with a splendid shot. The performance was nearly repeated a minute later with a similar effort, which went just outside the far post. Hereabouts the R.E.'s made a few spasmodic attacks, but apart from one shot which trickled across the goalmouth were never really dangerous.

Guy's continued to have the best of matters and Pickett with a fine "solo" run ended by giving the goalie no chance with a shot which entered the top corner of the net. Pickett scored again a little later. The final score being 4—0 in favour of Guy's.

Wakeford's return has strengthened the defence, and Gray was the pick of the halves.

Guy's Team.—R. C. May, C. A. Wakeford, A. W. Riddolls, J. Gray, C. B. Boyd, A. H. Musgrove, L. Walters, L. G. Pickett, D. H. Couch, O. Plowright, J. C. Neely.

Guy's Hospital v. Middlesex Hospital.

(Inter-Hospital Cup) Semi-Final.

GUY'S entered the final of the Inter-Hospital Cup by defeating Middlesex by one goal to nil at Chiswick, on Tuesday, February 19th.

The opening exchanges were slightly in favour of Middlesex. Guy's, as usual, being rather slow in getting warmed up. Pickett made a fine run through; his finishing shot being easily disposed of by the Middlesex keeper. Guy's were now playing well together without, however, troubling the opposing defence.

Nearing half-time there was a scramble in front of Guy's goalmouth, the outcome of which Middlesex scored. The point was disallowed through an infringement. The player who scored being adjudged offside.

Guy's were quickly on the move on the resumption, and a splendid shot by Williams ended in an equally splendid save by the Middlesex goalie. Middlesex then missed from an easy position.

A quarter of an hour of the second half had gone when Walters and Pickett combining well, took the ball towards the opposing goal, which ended in Couch putting the ball well out of reach of the Middlesex custodian.

Encouraged by this lead, so it seemed, Guy's were again in the vicinity of the Middlesex goal, and Walters had bad luck in seeing a glorious shot pushed over the bar.

Middlesex tried hard to draw level but Guy's defence was in good form.

During the closing stages May did rather well in clearing, when it seemed any odds on Middlesex scoring.

No further scoring resulted and a hard-fought game ended as stated above.

Guy's forwards were obviously much below their usual form, Walters, however, was very prominent. Riddolls was in great form at back.

A cup-tie, in which Guy's are engaged, is surely worthy of a little support from the Hospital. Not a single supporter attended to cheer the men on. The "soccer" Cup should be considered as sacred as all other cups, and it is hoped that the final tie will be well supported.

Guy's Team.—R. C. May, R. H. Hancock, A. Riddolls, J. Gray, E. Boyd, A. H. Musgrove, L. Walters, L. G. Pickett, L. S. Williams, D. H. Couch, J. C. Neely.

Guy's Hospital v. H.A.C.

BOTH sides fielded weak teams for this game at Honor Oak Park on Saturday, February 23rd.

In the first minute Guy's forced a corner on the left. The kick was accurately taken, and Couch headed through.

Ten minutes later the H.A.C. drew level.

Jones—operating at outside left—was very prominent with many well placed centres which caused the visitors some concern.

The second half opened just as sensational as the first. The ball was swung out to Jones, who, with a beautiful centre enabled Couch to gather and beat the H.A.C. goalie a second time.

Guy's, for a while were hard pressed. Hancock in particular showing to advantage in stemming the tide. The H.A.C. centre put well over the bar with only May to beat.

Following a little scrappy play Pickett got away and easily scored.

The H.A.C. scored again and thus Guy's deservedly won by 3—2.

Guy's Team.—May, Sharpley, Hancock, Gray, Boyd, Musgrove, Plowright, Pickett, Couch, Calder, Jones.

Guy's Cross Country Section.

THE date for the Kent-Hughes Cup Race (Inter-Hospital Cross-Country Championship) has been definitely fixed for Wednesday next, March 5th.

It is hoped that Guy's will turn out a large number of men, if possible more than the total number from the other Hospitals.

Cheap tickets may be obtained (1s. 6d. return) to Chislehurst, the train leaving the South Eastern Branch of the Southern Railway at London Bridge at 1.58 p.m.

MAURICE E. M. JAGO,
Hon. Sec. U.H.H. & H.

Boxing.

THE Inter-Hospitals' Boxing Competitions will be held at the National Sporting Club on Tuesday, March 18th. Tickets may shortly be obtained from N. L. Lloyd, or from the Hon. Secretary of the Pavy Gymnasium,

G. V. LLOYD WILLIAMS.

Guy's.

[We have received the following song, composed by a House-Surgeon of 1889. Set to the music of the "Vicar of Bray," with a chorus like the chorus of "Haul on the Bowline," it provides a song for Guy's, which has hitherto been wanting.—ED.]

IN days gone by old Thomas Guy,
By thrift and sober living,
Amassed much pelf, and gave himself
The noble joy of giving.
Quoth he "No more the sick and poor
Shall suffer unbefriended,
Henceforth they shall, in hospital,
Be skilfully attended."
So he set,
So he set,
Guy's in the forefront, the forefront, the forefront,
Guy's in the forefront. Guy's! Guy's!! Guy's!!!

So from that day Guy's came to stay
Adjacent to the Borough,
And won renown in London town
For treatment kind and thorough.
While many a name, undying fame
Achieved within Guy's portals,
By brain and hand, a noble band
Of glorious immortals.
So they kept, etc.

And now to-day, we're bound to say,
Unless we're undiscerning,
The staff of Guy's are keen and wise,
Renowned for skill and learning.
Long may they shine, a brilliant line
Their names we must not mention,
For folk from Guy's don't advertise:
At least not with intention.
Yet you find, etc.

From age to age Guy's war will wage
On death and fell diseases;
Till earth grows old, the sun grows cold,
And all the ocean freezes.
Still there will be, from sea to sea,
Although this world is dying,
Students of Guy's whose enterprise
Will keep our banner flying.
Then you'll find, etc.

Pass List, Hospital Information, etc.

Pass List.

L.D.S.

1st. Professional Examination.

February, 1924.

Parts I. & II.

Mechanical Dentistry and Dental Metallurgy.

J. A. Becker.
E. Boyd.
L. J. Brown.
I. E. Buxton.
L. Catchpole.
*J. Chamberlain.
L. R. Davey.
E. F. S. Dodd.
S. Droomer.
W. N. Farrar.
G. C. Ferguson.
†D. Gure.
H. Hall.
E. R. Irish.
R. M. Phillips.
†D. Raby.
G. J. C. Sem.
N. V. Z. Smit.
C. M. White.
*P. W. Binsted.
*D. M. Calder.
*T. G. C. Emberson.
*A. E. Farara.
*C. E. Long.
*A. McEwen.
*T. T. Oliver.
*I. S. Rutter.
*F. W. Sander.
*E. N. Screech.
*K. H. Wright.
†S. K. Arnold.
†F. J. Barnes.
†D. C. Buckley.
†T. M. Calhaem.
†R. L. Dale.
†H. E. Edney.
†G. E. Elkington.
†W. G. Fenn.
†W. F. Fuller.
†L. H. Ide.
†L. J. Martin.
†M. J. O'Donnell.
†G. R. Pidgeon.
†C. Skinner.
†H. F. J. Willis.

Mechanical Dentistry only.
†*Dental Metallurgy only.*

Part III (a).

Anatomy and Physiology.

G. C. Ferguson.
W. G. Fenn.
R. Bliden.
R. V. Bradlaw.
F. H. Chapple.
I. E. Barlow.
H. F. Boosey.
G. L. L. Burden.
S. Casper.
H. J. Daneel.
W. C. G. Ford.
N. Harris.
S. R. Howcroft.
W. W. R. Jenkins.
G. J. F. Jose.
B. S. Mead.
C. M. Veysey.

Part III. (b).

Dental Anatomy and Physiology.

R. V. Bradlaw.
F. H. Chapple.
W. L. Benson.
W. J. Badenhorst.
R. G. C. Broadbridge.
T. O. Clancy.
E. J. Clother.
L. Cowlishaw.
J. S. Crapper.
E. J. B. Curtis.
A. S. V. Daniels.
D. Davies.
A. C. Evans.
H. A. Gillett.
G. E. Glazebrook.
R. R. Haddow.
J. P. Hartman.
D. A. James.
A. C. Kempe.
H. C. L. Maister.
F. G. Parsons.
L. F. O. Seymour.
O. J. Sidi.
C. L. Steyn.
L. A. Steel.
G. V. L. Williams.
L. Weinberg.

L.D.S.

Preliminary Science.

January, 1924.

I. S. Rutter.
A. H. Crowley.
*J. A. Becker.
*J. H. F. Hilton.

D. M. Calder.
M. G. Berry.
R. L. Duchesne.
*G. N. R. Jones.
E. M. Greenwood.
R. T. Towne.
C. H. Woodham.
*V. H. D. Bascombe.
*J. R. A. Moore.
*S. D. Marcus.
*W. H. Shrigley.
†T. J. Barnes.
†C. H. Banks.
†W. N. Farrar.
*Chemistry only. †Physics only.

Conjoint Board.

2nd. Examination.

Part I.

Anatomy and Physiology.

January, 1924.

J. M. Turner.
L. G. J. Pitt Payne.
†H. S. Gaussen.
†R. Maneschewitz.
*J. N. Martin.
D. M. Timpson.
W. H. C. Lean.
N. M. Holloway.
*E. C. Grant.
*C. J. Wylde.
†N. N. C. Allen.
†B. Kaplan.
†J. R. W. Richardson.
*Anatomy only. †Physiology only.

Part II.

Pharmacology and Materia Medica.

J. M. Turner.
H. G. Davies.
A. R. Marsh.
W. G. Porter.
V. V. H. Hoaki.
R. Evans.
H. L. Belcher.

Conjoint Board.

1st. Examination.

Chemistry, Physics and Elementary Biology.

January, 1924.

*†R. F. Pritchard.
*E. A. R. Berkley.
*‡F. S. C. Pritchard.
*†A. Safey El Din.
*†W. J. Heely.
*R. S. Thomas.
*E. M. MacLachlan.
†‡W. W. Parry.
†G. E. King-Turner.
†N. B. Coltart.
‡W. E. Radford.
‡D. C. Buckley.
‡J. H. de Jager.
‡W. F. L. Hannay.
‡K. S. Keele.

Pre-Medical.

†T. B. Pitts.
*Chemistry.
†E. L. Monkhouse.
†Physics. ‡Biology.

Society of Apothecaries of London.

February, 1924.

Midwifery.

F. James.
R. Schofield.

Guy's Hospital Chapel.

THE following have kindly consented to give Addresses in the Chapel during Lent :—

Ash Wednesday, March 5th—
The Right Rev. The Lord Bishop of Southwark, D.D.

Friday, March 14th—
The Rev. C. J. Morton, M.A., Vicar of S. Saviour, Denmark Park.

Friday, March 21st—
The Rev. N. W. A. Edwards, O.B.E., BA, Vicar of S. John, Walworth (formerly Chaplain of Guy's).

Friday, March 28th—
The Rev. C. R. Cotter, M.A., Rector of Poplar.

Friday, April 4th—
The Rev. A. P. Gutch, M.A., Vicar of S. Margaret, Streatham.

Friday, April 11th—
The Rev. G. Gurney Richards, M.A., Rector of Limpsfield.

All the above services will be held at 8.10 p.m. A further list will be published later for Holy Week.

A. G. H.

Guy's Hospital Matinee.

A matinee has been arranged in aid of the Hospital, for Monday, March 10th, at 2.30 p.m., at the Aldwych Theatre, kindly lent by Messrs. Walls and Henson.

There are several unusual features in the programme, which will consist of some of the students of the Hospital, with their professional friends, singing songs, etc., composed and written by themselves.

An interesting auction will take place, and original copies of MSS. and music will be sold.

Tickets can be obtained from the usual libraries and the Appeal Office, Guy's Hospital (at reduced prices to Guy's men).

It is hoped that all the students, who are able, will turn out to support the venture and thus help to benefit Hospital Funds.

The whole programme and organisation is under the management of J. M. Sign'y.

Change of Address.

H. W. Dudgeon, Director of Lunacy, Egypt, Abbassia, Cairo, Egypt.

Births.

BAYLISS.—On February 14th, 1924, at West Kensington, to Martha, wife of Harold Paxton Bayliss, M.R.C.S., L.D.S., a daughter.

TONKIN.—On January 16th, 1924, at Boksburg, Transvaal, South Africa, to Rosemary, wife of B. Morwood Tonkin, M.R.C.S., L.R.C.P., L.D.S., a daughter.

GREENWOOD.—On February 23rd, 1924, at 58, Crouch Hill Road, Crouch End, N.8., the wife of A. Atkins Greenwood, M.B., B.S., M.R.C.S., L.R.C.P., of a daughter.

Marriage.

GABRIEL—TYSON.—On February 14th, 1924, at St. Margarets Church, Lowestoft, by the Rev. G. N. Selby-Lowndes, assisted by the Rev. E. C. Morgan (Rector of the Parish), William Bashall Gabriel, M.S., F.R.C.S., younger son of the late E. E. Gabriel, and Mrs. Gabriel, Carlton Colville, Suffolk, to Evelyn Maud, daughter of Wilson Tyson, M.B., F.R.C.S., and Mrs. Tyson, Lowestoft.

Deaths.

FORTY.—On February 5th, 1924, suddenly, at Lincoln Lodge, Paignton, Devon, Daniel Herbert Forty, M.R.C.S., L.R.C.P., late of Wotton-under-Edge, Gloucestershire.

LANSDOWN.—On Sunday, February 17th, 1924, suddenly, at 39, Oakfield Road, Clifton, Bristol, Robert Poole Lansdown, the dearly beloved husband of Alice Anna Lansdown (née Griffiths).

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *March 15th, 1924.* *Number 931*

PASSIM

IN looking through the daily newspapers, the weekly journals and the monthly magazines, we have always admired and secretly envied the ease with which spare columns are filled with the miscellaneous remarks of every sort of person. "What they are saying," and "Sayings of the week," fill the blank spaces of the Editor and the mouths of those unable to say things for themselves. For the first reason only we are almost tempted to include such a column in the GAZETTE, and the very first of our great sayings would be "'Off with his head.'—The Duchess." The reason for wishing to start with the pet phrase of this remarkable lady is a personal one, although the moral has a wider application. In bitter truth the Editorial head has, during the last week, been snapped off no fewer than three separate times. It was an unoffending head and was each time replaced with complete forgiveness, but there is some doubt whether the pleasure of having it resecured with smiles quite atoned for the original decapitation. Nowhere within the Hospital can greater tranquillity be found than in the Editorial Office. Only on the rarest occasions does the foot of man cross its threshold and then, as often as not, it is the foot of the lady with the duster, come to rearrange the Editorial dust. Only those, who have tasted the peaceful seclusion of this sequestered room, can appreciate the jar with which one leaves it for the turmoil and bustle of the surrounding world.

▭

In the *Edinburgh Medical Journal* of last January there is an address entitled "the spirit of leisure and the spirit of work." This address was given some years ago by Dr. James W. Dawson to the Edinburgh Women's Medical Society and was an exhortation on the better use of their leisure hours. We, in our halting way, would now plead for more leisure hours or for the return of those hours, which once were leisured, but are now so feverish. It is no longer possible to glide peacefully through life; it is even possible that at life's end Charon will hustle us across the Styx in a hydroplane. As an unambitious, contented liver, we would enact the duties of this life with a soothing deliberation, which defies the spirit of anger, but "Off with his head," snaps the Duchess, and frightens us into keeping pace with the whirl of modern existence. The speed of modern life is appalling. Even in our own Hospital a leisurely gait is less frequently seen than the gait of the tabetic, while sauntering is a lost art. Days of restless activity follow one another with breathless haste, and before one can sit down to think on the beauties of to-day, it is to-morrow. This altogether unwarranted speed is not only irritating, but positively dangerous, and we pause to recall a very dear friend, whose excessive zeal for getting things done enabled him to rise to the most worldly heights. He gave out more energy than a donkey engine and rattled louder than an over-worked gramophone. And his end was as sudden as his life. Hastening to catch his morning train, he travelled with such determination that he arrived at the platform before the train and fell upon the rails. There is little doubt that in his new sphere of life, he is one of the strongest and most notable fliers.

▭

Why must everything be done with so much wasteful energy? Why must we work so feverishly and play so desperately? It is the re-

sult of sacrificing the spirit of leisure to the spirit of work. Referring again to Dr. Dawson's address, he says that there are three realms of refreshment awaiting our visit—the realms of Fairyland, of Art, and of Nature. Yet who now will seriously discuss fairies or who even knows the meaning of the word? There is no time left for reflection; even our pleasures have run away with us. Melody has given place to discord and it is significant that in the music shops even the pianofortes are now unblushingly advertised as upright but overstrung. The whole world is overstrung and the ensuing venous cerebral congestion is producing an extreme degree of irritation. We have already said that the underlying idea of this "Passim" is a personal one, and it is for this reason that we protest against the speed of modern life, which leads to universal restlessness, irritability and the snapping-off of the Editorial head. We think that it is very likely that the reversion of cigarette-smokers to the habit of taking snuff would aid materially in making life more sedate. The graceful art of snuff-taking requires time for its perfect consummation and is conducive to leisurely and contemplative habits. We would not have it thought that we advocate any curtailing of the multiple acts of benevolence, which are daily enacted within the Hospital; we only plead that they should be continued in a more contemplative fashion. Let us illustrate this point. Not many months ago, a young house officer while making his usual round at six o'clock in the morning, surprised a patient in the act of becoming an acute abdominal case and, rushing to the telephone, in his hastily-donned sports' coat and scarf, summoned his "firm" in some such words as these, "Come on, chaps; double up. We must operate without a moment's delay." He then proceeded to the preparation room to "wash up" for the operation and to wait. For a long time he waited, fretfully and with dire forebodings as to the prognosis of the acute abdomen, until presently the sound of fresh young voices announced the approach of the ward-clerks. They were as fresh as the dawn. They were shaven, bathed and groomed, their shoes were freshly shone, and they wore collars and ties. In due course they were followed by the rest of the "firm," also with their toilet and robing completed. The young house officer, who had sat alone in the operating theatre for half an hour, was unshaven, unwashed and unhappy. Later, while the firm breakfasted with great appreciation, the poor young man hurriedly lacerated his face with a razor and his soul with the knowledge that the dinner-hour was approaching and his round of the wards was still before him. The patient made an uneventful recovery. The moral of this short and true tale is too obvious to need expounding. Nothing is gained by fretful haste, but choler and irritation, while the aims of life approached in a quiet, thoughtful mood are gloriously achieved.

Obituary.

Frank Cloud.

TO those of us who were at Guy's between the years 1890 and 1895, the death of Frank Cloud ("Fatty") will have come as a great shock, and will cause a blank in the hearts of us all not likely to be blotted out before we too pass on into the Great Unknown. For his was a great, wonderful, and most lovable personality. I, who have known him most intimately from those early days, find it difficult to say what was his chief charm—he had so many. With Horace one could acclaim him. "Macte Virtute Puer."

He was lavishly endowed by Nature with good looks, an athletic body, a most cheery disposition, a clear and philosophic mind. He was generous to a degree, his judgment was seldom, if ever, at fault, his sympathy was unbounded. His energy was amazing; whatever he found to do, he did it with all his might. Perhaps of all his attributes, his devoted care of his mother, whose age is now 92, was the most remakable. In 1895 his father died.

In 1896 he qualified M.R.C.S. and L.R.C.P. and soon after he settled in New Buckenham. a Norfolk village, fifteen miles out of Norwich. There he established his mother, and so closely did he tend her that it was with the greatest difficulty one could get him to stay away from home for more than a single night. The attraction of New Buckenham was not so much

the possibility of building up a lucrative practice as the amount of sport of all kinds close at hand, of which I will name hunting, shooting and yachting. Hunting with him was a passion always. He hunted with the Norfolk and Norwich Staghounds, and occasionally with the West-Norfolk Foxhounds. He was a first-rate horseman and a bold rider; he was a great judge of a horse and, in consequence, always well-mounted. It was a great grief to him, though naturally accepted as a necessity, when his horses were commandeered in the Great War. He had by then become a noted shot throughout the county, and he was never without invitations to shoot over some of the

most celebrated shoots in this most sporting of counties. My latest récollection of him is at a shoot last October when we stood at adjoining stands, and I found myself losing my opportunities owing to my attention being drawn to him and his killing. It was grand! His third hobby in the sporting world was yachting; this, during the last half dozen years, he took up with avidity. In his boyhood he had learned, under his father's tuition, the art of handling a boat. He was by intuition and training a first-class skipper, and it was a delight to watch him sailing on the Broads, or on the sea. He got all there was to be got out of boat and crew.

But let it not be thought that his life was one round of pleasure. It is true that, coming as he did from the West of England, he lived up to the spirit of an old saying down there, which he often quoted—"While we live let's live in clover, for when we're dead we're dead all over." But he worked, and worked hard; he was always busy. When he settled in New Buckenham he put up a brass plate and commenced to practise. In little more than two years he took that plate down, not from want of success—he would have succeeded anywhere—but because of the petty squabbles with his professional neighbours. The whole business was abhorrent to him and he would have no more. And yet so good was his work during this short time that he established a reputation as a physician which remained with him to the last. From far and near people would come for his opinion, and it is a remarkable fact that in most cases his opinion was right. This, I have no doubt, depended mainly upon his strong common sense, though it also reflects great credit upon his old school, Guy's.

Having freed himself from active practice he turned his attention to matters parochial. It was to him that everyone turned; he was especially interested in the young men of the village; to make them men was his desire, and to this end he devoted a great deal of time to the various village institutions. At the time of his death he was president of all, and thanks to his business acumen and ready help these are all financially sound and well run. An old resident told me only a week ago that there is not a soul in New Buckenham who does not speak with feeling of the loss of "The Old Doctor," on account of his many acts of kindness in alleviating distress, in giving counsel, in upholding the cause of the down-trodden. That, I know, is no exaggeration.

In the Great War he was, I think, at his best. When war broke out he at once volunteered as a combatant, but was rejected. He then threw his energies into recruiting, in which his success was phenomenal. Later he was on the Board of Examiners under the Ministry of National Service, and still later served on the Pensions Board. In both he worked with all his enthusiasm and conscientiousness.

Of his illness, which terminated fatally on January 24th of this year, one word. On the day after Boxing Day last, he was seized with an attack of appendicitis; on the following

day he was operated upon, an abscess being opened and drained. From the first he never did well; there was clearly something more, and in a fortnight this showed itself in the shape of a sub-phrenic abscess which had to be opened. From this operation he only partially rallied; in a week ileus showed itself, and though a third operation was attempted in the vain hope that something other than ileus might be found, yet it proved to be ileus and to this he rapidly succumbed.

But his courage throughout his illness will ever remain in my mind. All along he was convinced that he would not pull through, and yet he did all that a man could do, and never lost his cheeriness nor forgot his friends. Of many mutual friends we spoke, and among them the Guy's '88 Club. For them he quoted Omar Khayam, and this is his last message—

"And when thyself with shining feet shall pass
Among the guests star-scattered on the grass,
And in thy joyous errand reach the spot
Where I made one—turn down an empty glass."

It was so characteristic of him, and will remain, I think, green in our memory for all time. He was indeed a great man, the best and truest of friends, a perfect gentleman. For him I know of no more fitting epitaph than this :—

"So when the last great Scorer
Starts out to score your name:
He writes—not that you won or lost—
But how you played the game."

W. E. ROBINSON.

Eric W. Bostock.

ERIC W. BOSTOCK was a student at Guy's for two academic years, from October, 1919, to July, 1921. Early in the war he left his school, "Blundle's," for military service at home, in Palestine, and in France. After demobilisation he took a preliminary course of study at Exeter University and then came to Guy's to commence his medical education. He passed the 1st M.B. examination at the close of his first year, and the 1st part of the 2nd M.B. immediately before he was forced to give up medical studies. Throughout his last months at Guy's he was in very poor health, being unduly easily fatigued. This, however, was attributed to excessive study, and lack of exercise. Before he had learned the result of his last examination he returned to his home in Tiverton for the summer vacation. Very soon after he wrote to say that he had been sent to a Sanatorium. Thenceforward he spent the greater part of his time at the Nordrach-on-Mendip Sanatorium, being treated for advanced phthisis. After he had been there for some time an attempt was made to produce an artificial pneumothorax, but this was found impossible owing to the multitude of pleural adhesions. He went almost steadily down hill, hoping, however, until the last few weeks that he would be able to return to Guy's in due time. He died on Sunday, February 17th, at the Sanatorium.

There must be many still at Guy's upon whose minds Bostock's personality has made an ineradicable impression. In appearance he was tall and pale with a suggestion of the "strong silent man" in his face. He was a keen lover of horses and hunting. There was one aspect of his character which he did not attempt to conceal from his friends: it was his immense love for his mother. They seemed inseparable. Unhappily Mrs. Bostock's loss is now correspondingly severe. Even this sincere note of sympathy can, one fears, do little to alleviate her distress. None the less there are many of his friends at Guy's who desire to convey to Mr. and Mrs. Bostock a message of sincere sympathy upon their bereavement.

Change of Address.

H. Paxton Baylis, M.R.C.S., L.D.S., 6, Cavendish Place, W.1. ('Phone: Western 4676); and 10, Brunswick place, Hove. ('Phone: Hove 762).

A. H. Douthwaite, M.B., B.S., M.R.C.P., Carlingford, Salisbury Rd., Worthing, Sussex.

Powis Conway-Jones, L.D.S., Dene Lodge, London Road, Guildford.

James B. Hine, L.D.S., c/o Anglo South American Bank Ltd., Buenos Aires, Argentina.

Dr. H. A. Crowther, Medical Supt., Devon and Cornwall Sanatorium, Didworth, South Brent.

H. Acland Munro, 55, Queen's Gardens, Lancaster Gate, W.2.

A. H. Miller, M.D., King Edward VII. Sanatorium, Midhurst.

Graydon Hume, 5, Harley Street, W.1. ('Phone: Mayfair 4384).

W. Shirley Kidd, M.B., B.S., 4, Leeds Rd., Harrogate.

Appointment.

K. M. Woodruff, M.B., B.S. (Lond.), Anæsthetist to the Royal National Orthopædic Hospital.

Insulin.

A Paper read before the Physiological Society by MR. KENRIC C. BILLINGHAM.

(*Concluded*).

I have made reference to the careful regulation of diet necessary in diabetic patients, and the relationship, believed to be specific for each patient, between the amounts of protein, fat and carbohydrate to be given. Clinical experience has shown that when patients with severe diabetes are made sugar-free by fasting or dietetic adjustments, and their diet in then increased, sugar excretion is absent until the glucose equivalent of the diet rises above a certain limit varying in each individual. Once this tolerance limit is passed further addition to the diet produces a disproportionately large sugar excretion.

R.Q. and Basal Metabolism.—Unfortunately, time prevents my entering into a detailed description of such conditions in diabetes as the R.Q., basal metabolism and associated phenomena, and I can only give a few of the more salient features. Much of the work has been done at this hospital,[14] and I fear to rush in on unfamiliar ground. In diabetic subjects there is no doubt that insulin causes a rise in the R.Q. and a diminution in the oxygen intake. To conform with the facts, Dale[18] suggested that insulin causes carbohydrate to be oxidised in preference to other foodstuffs. This theory is satisfactory as far as it goes, but a R.Q. over unity has been obtained in experiments here, although the numerical value is not insisted on at this stage. However, there seems to be little doubt that some of the sugar taken can be stored when insulin is given in a form other than glycogen. Kellaway and Hughes[19] have suggested some fat complex, and this hypothesis would agree with the observed diminution in oxygen intake and the very high R.Q.s. The increase in total metabolism following the ingestion of food is known as the specific dynamic action of foodstuffs and varies with the kind of food. Protein has highest, then fat, and the lowest is carbohydrate. The higher specific dynamic action of protein and fat is assumed to be the cause of the high oxygen intake in untreated diabetics who are unable to utilise much carbohydrate. On the other hand, in patients treated with insulin, the lowered oxygen intake is explained by the low specific dynamic action of the carbohydrate that they are enabled to use.

Blood-sugar and Hyperglycæmia.—Insulin not only removes the symptoms of diabetes due to inadequate internal secretion, but it prevents the development of hyperglycæmia and glycosuria induced by experimental and other means such as Bernard's puncture of the fourth ventricle of the medulla (provided that the splanchnic nerves and the suprarenals are intact), pressure on the floor of the fourth ventricle by a tumour, or stimulation of the splanchnic nerves. Injection of adrenalin causes hyperglycæmia, or of phloridzin, a glucoside yielding glucose and phloretin on hydrolysis. Phloretin acts similarly. Morphine hyperglycæmia depending on the integrity of the suprarenals is counteracted by insulin.[20] In rabbits previously fed with abundant carbohydrate food so as to ensure a high percentage of glycogen in the liver, none of these experimental agencies caused more than a very slight increase in blood-sugar if the animals had been injected with insulin. Various forms of asphyxia, including ether anæsthesia, cause a hyperglycæmia which can be prevented by insulin. This, as has been mentioned, may have an application in surgery. Insulin then is capable of making a variable amount of sugar disappear from the blood, or of preventing an increase in the existing blood-sugar which would otherwise take place, when pancreatic insufficiency, has nothing to do with the sugar or the increase of sugar in the blood.

Endocrine function of Insulin and its Relation to other Internal Secretions.—Parathyroid extract appears to have no action on the blood-sugar, although Collip says that guanidine sulphate produces hypoglycæmia, but hypoglycæmic convulsions are reported by Winter and Smith to be induced in rabbits after one-third to one-quarter the normal dose of insulin when parathyroid extract has first been injected. This has not been generally confirmed and is even contested. Thyroid excess may aggravate, but not necessarily cause diabetes. In cases of deficiency of thyroid secretion, patients are

able to ingest much larger quantities of sugar without glycosuria. This condition may partially or wholly mask glycosuria and hyperglycæmia due to pancreatic insufficiency, but none of these phenomena can be interpreted in favour of an antagonism between pancreas and thyroid or to their being a thyroid element in diabetes. Price,[21] however, regards the suprarenals, the posterior lobe of the pituitary and the thyroid as controlling blood sugar, on the one hand, and the pancreas as the sole member of the opposing group. The gradual destruction of the posterior lobe of the pituitary responsible for Fröhlich's syndrome also causes a great increase in sugar tolerance, seen also in myxœdema. In acromegaly, on the other hand, glycosuria may occur either at the onset or later, and insulin acts as in pancreatic diabetes. In lesions of the ovary, or when the ovary begins to atrophy at the menopause, injection of adrenalin is said to cause a more marked hyperglycæmia.

γ-sugars.—That insulin prepared from the ox, sheep, pig and other animals, even fishes, acts in the human body suggests that it is not essential for the action of the cells of the organism, but it seems more probable that it is an enzyme or the activator of an enzyme, or both, having as its function an action on glucose, changing it so that it can be burned or stored, for although the blood of a diabetic is usually so surcharged with sugar that the sugar overflows into the urine, yet the tissues are almost unable to utilise the sugar, as we have seen. I should like to conclude this paper by recording a few experiments that have been made with a view to ascertaining what differences exist between normal and diabetic blood-sugar, and also to lay before you rather more than in broad outline the present views on the constitution of the carbohydrates. Clark,[22] the results of whose perfusion experiments were described above, noticed that perfusion of the pancreas with Locke's solution containing glucose caused the optical rotation to be diminished, whereas the copper reducing power was unchanged. Hewitt and Pryde[23] have confirmed this. Clark suggested that the pancreas contained and liberated an enzyme responsible for changing glucose into another form of sugar which could then be utilised by the body. Since this was done in 1917 much work has been expended in laboratory attempts to separate a hypothetical form of glucose, and much of it has been done in the Biochemical Laboratory at Cambridge.

Winter and Smith's[17] experiments have been based almost entirely on one particular method of inquiry, namely, a comparison of the ratio of the polarimetric to the copper reducing value in various types of sugar, and since, (at least so far as I have been able to find), many of their experimental results, although apparently remarkably consistent, have not been generally confirmed in other laboratories, it may seem superfluous to give too full an account of their work here. Their quoting of Hewitt and Pryde's experiments in support of their theories provoked a polemic retort from Hewitt,[24] who repudiated any responsibility for such hypotheses. The validity of the method employed has been questioned, but it may be that their theories will be substantiated when more of the problems of carbohydrate constitution have been elucidated. Meanwhile the excellent mental picture resulting from the assumption of these alluring hypotheses must not blind us to the insecurity of their foundation. Polarimetric evidence alone is insufficient and often misleading.

The constitution of glucose and fructose according to present views is shown in Fig. 11.[25]

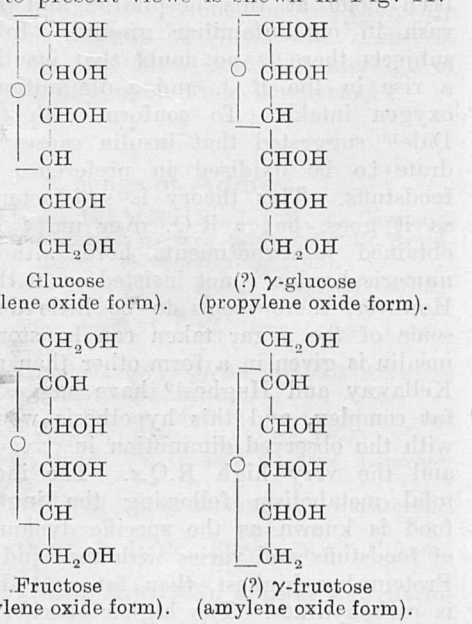
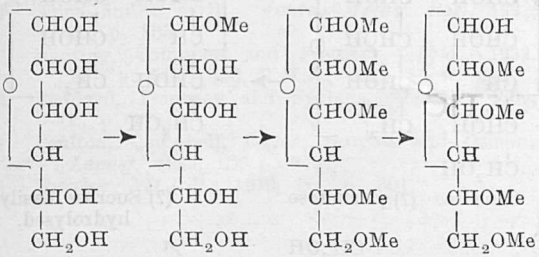


FIG. 11.—Showing probable structure of normal d-glucose and suggested structure of the corresponding γ-forms.

The process of methylation has been employed in the study of carbohydrates to introduce stable methyl groups into all the hydroxyl

positions of reducing sugars. Taking the example of glucose, the sequence of reactions leading to a fully-methylated product is as follows. Methyl glucoside is first formed and additional methyl groups are introduced into the remaining hydroxyl positions. Acid hydrolysis of this methylated glucoside leads to the elimination of the glucosidic alkyl group, while the other methyl groups survive.

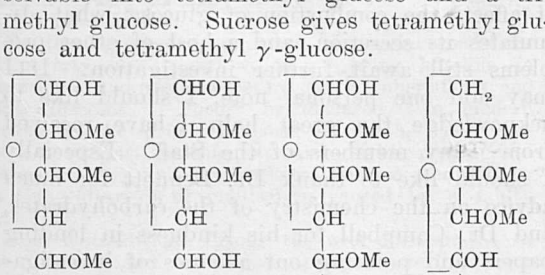


Glucoside formation. Methylation. Hydrolysis.

FIG. 12.—Showing methylation and subsequent hydrolysis of glucose.

Methylated sugars are extremely suitable for experimental study, for they are readily crystallisable in highly characteristic form, so that they may isolated and identified by physical constants and serve as reference compounds. Five such methylated hexoses have sufficed for the determination of the most important disaccharides and polysaccharides. They are tetramethyl glucose, two isomeric forms of trimethyl glucose, tetramethyl γ-glucose and tetramethyl galactose.

To take an example, maltose on methylation gives a heptamethyl maltoside, which is resolvable into tetramethyl glucose and a trimethyl glucose. Sucrose gives tetramethyl glucose and tetramethyl γ-glucose.



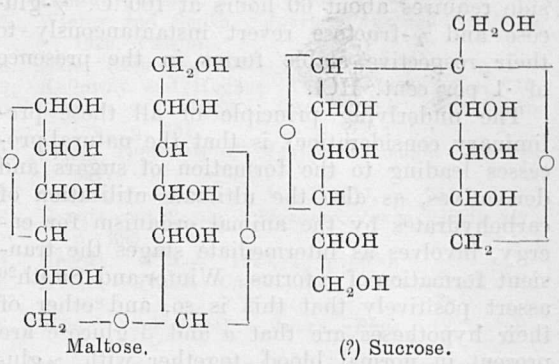
(1) 2-3-5-6 Tetramethyl glucose. (2) or Galactose.

(3) 2-3-6 Trimethyl glucose.

(4) 2-3-5 Trimethyl glucose.

(5) 2-3-4-6 Tetramethy γ fructose.

METHYLATION.		HYDROLYSIS.
Maltose	→ 7-methyl methyl-maltoside	→ (1) and (3)
Lactose	→ 7-methyl methyl-lactoside	→ (2) and (3)
Sucrose	→ 8-methyl sucrose	→ (1) and (5)



Maltose. (?) Sucrose.

FIG. 13.—Showing reference methylated hexoses, hydrolysis of certain disaccharides and constitution of maltose and sucrose. The constitution of sucrose is regarded as doubtful because it is based on γ-fructose, the structure of which is assumed with less certainty than that of normal fructose.

The tetramethyl fructose obtained from sucrose was abnormal in being dextro instead of laevo-rotatory. It is now recognised that this compound belongs to the type generally known as γ-sugars. The internal oxygen ring is displaced to one of the alternative positions. It may be convenient at this stage emphatically to point out that the term γ has no tertiary significance, except, perhaps, chronologically. Reducing sugars can usually be obtained in two isomeric forms, exhibiting mutarotation in opposite directions and this is attributed to a rearrangement of the groups in the reducing position. α and β designate these isomerides. This isomerism is in no way dependent on the position of the internal oxygen ring, since both α and β glucose correspond to the butylene oxide form. The discovery of another form in which the oxygen ring is displaced from its normal stable position could not be reconciled with the existing nomenclature, and the general expression γ-sugars has a wide significance. In no case has an unsubstituted γ-sugar been isolated up to the present, although their transient existence is recognised. Fleeting glimpses of extraordinarily reactive sugars have been seen in the laboratory. The reactions of the γ-sugars show a remarkable resemblance to natural processes. For example, the compounds undergo oxidation with extreme ease, being affected by mild oxidation. Trimethyl glucose instantaneously reduces Fehling's solution in the cold. At ordinary temperatures the γ-sugars are converted into glucosides with great rapidity. It may be remarked that the formation of α-methylgluco-

side requires about 60 hours at 100° C. γ-glucose and γ-fructose revert instantaneously to their respective stable forms in the presence of ·1 per cent. HCl.

The underlying principle of all these preliminary considerations is that the natural processes leading to the formation of sugars and derivatives, as also the ultimate utilisation of carbohydrates by the animal organism for energy, involves as intermediate stages the transient formation of forms. Winter and Smith[26] assert positively that this is so, and other of their hypotheses are that *a* and β glucose are present in normal blood, together with γ glucose. *a* and β glucose cannot be directly stored or utilised, but an enzyme is postulated whereby *a*—β glucose is converted into γ-glucose, and the change is pictured thus—

Glycogen→*a*-β glucose. (by insulin)→γ-glucose–

The absence or inactivation of this enzyme is suggested as the direct cause of diabetes mellitus. The effect of the insulin is said to be to activate the enzyme responsible for the change *a*-β glucose → γ-glucose.

Diabetic blood is assumed to contain a small amount of γ-glucose, the form in which sugar is said to be used by the tissues.

No naturally occurring compound of glucose, whether glucoside, disaccharide or polysaccharide, has given the γ glucose structure, and the reactive type has been obtained only under artificial conditions, but sucrose is based on γ-fructose. Possibly γ-glucose possesses the simple aldehydic structure and γ-fructose the ketonic. In support of this view it may be mentioned that when aldehydes and ketones condense with hydroxy-compounds (including sugars) the products resemble sucrose in their ease of hydrolysis. To take an example; when acetone condenses with ethyl alcohol, the product is hydrolysed at once by shaking with water containing less than ·01 per cent. of mineral acid.

Thus the condensation of glucose (the formula of which is known) with fructose can be equally well explained by assuming fructose to function as a ketone.

Perhaps even γ-sugars may not be chemical individuals, but may represent a condition of the sugar molecule originating in the mechanism whereby a sugar forms certain of its derivatives. This view is held by many chemists. However, this is as far as I can carry the speculation on the constitution of those reactive sugars, and I hope I have not wandered too far from the original subject.

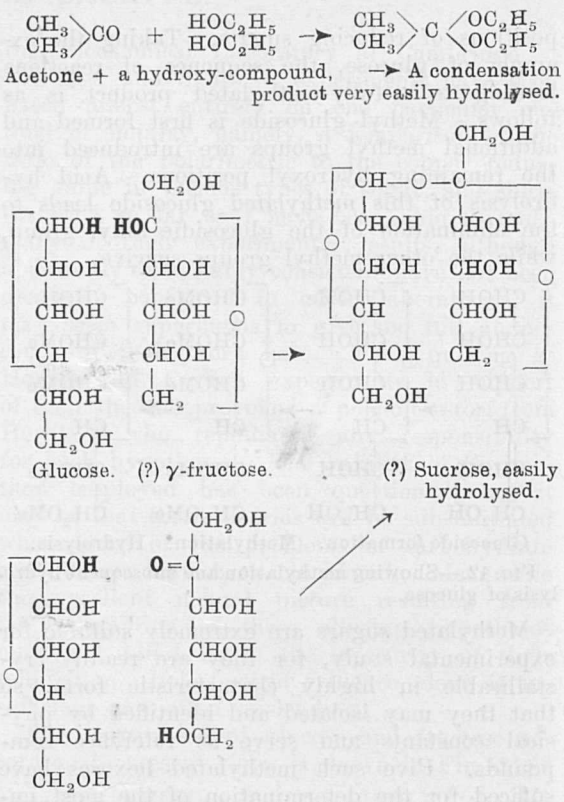


FIG. 14.—Showing mode of formation of sucrose.
(1) Assuming the amylene oxide form of γ-fructose.
(2) Assuming γ-fructose (by the analogy of ease of hydrolysis) to be the ketonic form of the sugar.

Much has yet to be learned regarding the physiology of insulin, how it is formed, how it affects the combustion of glucose, what stimulates its secretion, and a host of other problems still await further investigation. If I may add one personal note, I should like to acknowledge the great help I have received from many members of the Staff. Especially I should like to thank Dr. Bennett for much advice on the chemistry of the carbohydrates, and Dr. Campbell for his kindness in lending papers and pointing out avenues of investigation that have proved fruitful.

REFERENCES.

1. Clark. *Johns Hopkins Hospital Reports*, xviii., (1918), p. 229.
2. Allen. *Journ. Metab. Res.*, 1922, I., p. 1, 2.
3. Collip. *Journ. Biol. Chem.*, 1923, lv., Proc. xl.
4. Doisy, Shuffer and Somogyi. *Ibid.*, 1923, lv., Proc. xxxi.
   Dudley. *Biochem. Journ.*, 1923, xvii., p. 376.
5. Winter and Smith, *Journ. Phys.*, 1923, lvii., Proc. xl.

Hutchinson, Smith and Winter. *Biochem. Journ.*, 1923, xvii., p. 683.
6. Collip. *Journ. Biol. Chem.*, 1923, lv., Proc. xxxix.
7. Collip. *Proc. Soc. Exp. Biol. and Med.*, 1923, xx., p. 6, 321.
Best and Scott. *Ibid.*, 1922, xx., p. 66; and *Journ. Metab. Res.*, 1923, III., p. 177.
8. Telfer. *B.M.J.*, 1923, i., p. 715.
9. Poulton. *Lancet*, 1918, i., p. 863, 895; 1918, ii., p. 31.
10. Macleod. *B.M.J.*, 1923, i., p. 833.
11. Allen and Sherrill. *Journ. Metab. Res.*, 1922, ii., p. 803.
12. Banting, Campbell and Fletcher. *Ibid.*, 1922, II., p. 547; and *B.M.J.*, 1923, i., p. 32.
13. Beddard, Pembrey and Spriggs. *Lancet*, 1909, i., p. 1741.
14. Poulton, Campbell, Payne, Burgess and Osman. *Lancet*, 1923, ii., p. 777.
15. Hurtley. *Q.J.M.*, 1916, ix., p. 301.
16. Pembrey, *Journ. Phys.*, 1903, xxix., p. 195.
17. Winter and Smith. *Journ. Phys.* and *B.M.J.*, 1923, Passim.
18. Dale. *Lancet.*, 1923, i., p. 989.
19. Kellaway and Hughes. *B.M.J.*, 1923, i., p. 710.
20. Stewart and Rogoff. *Amer. Journ. Phys.*, 1923, lxv., p. 331.
21. Price. *Textbook of Medicine*, London 1922, p. 386.
22. Clark. *Journ. Exp. Med.*, 1917, p. 731.
23. Hewitt and Pryde. *Biochem. Journ.*, 1920, xiv., p. 395.
24. Hewitt. *B.M.J.*, 1923, i., p. 590.
25. Irvine. *Trans. Chem. Soc.*, 1923, cxxiii., p. 898.
26. Winter and Smith. *Journ. Phys.*, 1922, lvii., p. 100.
Forrest, Smith and Winter. *Ibid.*, 1923—4, lvii., p. 224.
Winter and Smith. *B M J.*, 1923, i., p. 12, 711.

Physiological Society.

A meeting of the Society was held in Class Room 4 on Tuesday, February 20th, 1924, at 4.15 p.m., to debate the motion "That Modern Civilisation is a Failure." About ninety members were present with Dr. Ryle in the chair.

Mr. A. E. MacLagan, proposing, said that he had agreed with the opposer to define civilisation as a process of improving the human race. He then proceeded to compare modern society to that of ancient Egypt, Greece, and Rome, and stated that conditions in Europe since the war were parallel to those obtaining in the declining years of these nations. He considered there was marked evidence of degeneration in Society, shown by the feeble state of Religion, the low taste in Art, Literature, and Music; and the incessant craving after excitement, pandered to by the cinema, which was responsible, according to many magistrates for the majority of juvenile crimes.

He then proceeded to attack the social conditions of poverty and overcrowding as being horrible in themselves and responsible for much tuberculosis and other diseases. "Food," he declared, "in modern society is the principle cause of death," and proceeded to justify this, at first sight paradoxical statement, by quoting intestinal disease and cancer as being diseases of civilisation caused by a faulty diet.

Modern conditions favour the over-development of the intellect and so tend to promote sterility, this tendency being supported by late marriages and the custom of married women earning money to keep themselves in luxury. Finally he declared the recent advances in the healing art were hastening the processes of degeneration by removing the beneficent action of natural selection and allowing the unfit to live and multiply, often at the expense of the fit.

Mr. S. I. Abrahams, opposing the motion, accepted the definition of civilisation given by the proposer and maintained that so far from failing in its purpose the human race had, in fact, been impoved. He suggested that the characteristics of an improving civilisation were adaptability, ascendancy over other creatures, and individuality. The chief difference between man and other animals was in the use of tools, which was the beginning of the struggle between intellect and instinct. In this struggle intellect had won all along the line and at the present time man was master over all creatures except certain bacteria, and more and more of these every year were being overcome by the advances of medical science. He mentioned also the great advances made in the conquest of the world by mechanical aids of which he instanced ships, railways, wireless and the recent advances in surgery. In adaptability he confessed we had not advanced so far, and quoted Dean Inge to show that a race that had made itself responsible for the indiscriminate preservation of its members would have to make itself responsible for some limitation and selection in breeding.

He was surprised that the proposer considered medicine did more harm than good. The function of medicine was to heal the weak and feeble and make them strong, not to kill them as apparently some would suggest. He compared physiologists with the man who refused the gift of a large sum of money for fear of the responsibilities it would entail. Physiologists were afraid of the gifts of civilisation because of certain disadvantages. They suggested among other things it encouraged sterility; he confessed he was unable to see much evidence of it in the Medical Profession essentially products of civilisation, the late marriage was not so common as was suggested. Finally, he quoted Bergsen as describing all organised beings as an immense army attacking valiantly the most formidable obstacles, and on the whole overcoming them.

Mr. T. J. Evans, M.A., said he felt surprised, when first he heard of the motion, that anyone could be found to oppose it. It seemed to him to be self evident and any lingering doubt about it had been dispelled by the poor case put forward by

the opposition. He considered the collaboration of the mover and the opposer of the motion on the definition of civilisation was to be deprecated, nor did he agree with the definition thus produced. He preferred to say that civilisation was a process by which the race aims to establish its essential characteristic, i.e., humanity. He then propounded the doctrine that the same characteristics that raise a race will eventually cause its downfall, claiming that the action of this principle may be seen through all the history of life and that it is accepted by all biologists. He proceeded to show how the essential characteristics of the human race were shown by the kind of men most admired and respected by mankind. These he said, were the artists, whether of painting, writing, music, or acting; also religious and political leaders and speakers, none of whom he remarked led to the continuance of the race. The Social Reformer would make the world a soft place for the criminal and the incapable, and advocated a general levelling down process. The scientists seemed to concentrate on the manufacture of explosives and poison gas for the destruction of the human race. Doctors themselves were the most criminal by preserving the tuberculous, feeble-minded and generally rotten stock, and enabling them to breed and increase the number of degenerates often at the expense of the healthy; and the religious teachers were not backward in supporting them.

Mr. E. C. Hughes, M.Ch., disagreed with both of the definitions given previously and preferred to say that civilisation was the difference between the state of a highly developed race as opposed to a savage race. He then caused considerable amusement by relating how he had once seen George Robey in a music hall made up as a cave man, how a colleague, who was with him had at once turned and whispered one word, "Pembrey." After some delay Mr. Hughes remembered that the point of this story was to indicate that there was really little difference between the savage man and the civilised save a greater development of self control and of intellect. All the deep seated strongly moving qualities of man were the same in the uncivilised and the civilised. This fact was recognised by all legislative bodies which invariably appealed for the enforcement of their laws to the primitive motives in man. All the beneficent qualities of civilisation were due not to the changed nature of man but to the system. All the difficulties, such as crime, disease and unemployment, were due not to the system but to the beastliness of man.

On the debate being thrown open to the meeting Mr. C. E. Allen inquired why the proposer of the motion did not return to the savage mode of living and wander down the Strand in a loin cloth, and suggested the answer was fear. Lest any other members of the society should be tempted by the joys of savage life he proceeded to describe certain unpleasant customs apparently rife in the South Pacific, but from which he was happy to think modern civilisation was free. He also disagreed with Mr. Evans on the advantage of artists to the race and said they provided joy in life and by making life worth living prompted men and women to hand on the gift.

Mr. Rogers said he had come to the meeting with an open mind, but had been convinced partly by the arguments of the supporters of the motion, but more by the paucity of argument shown by the opposers, and proceeded to tear one or two of them in pieces.

Mr. Bradley, by a short, but closely reasoned speech, proved that all who criticised civilisation were talking nonsense.

Mr. Bradlaw kindly accepted Mr. Hughes' definition of civilisation and, comparing modern and ancient society, discovered that moderns were superior physically and morally, if not mentally.

The debate continued with great vigour for a long time and was remarkable for the number taking part. Most of them spoke against the motion, but a few visitors from the wards, speaking with the weight of their greater experience, strove to damp the enthusiasm of youth, and to suppress the gambols of the flippant.

As the time grew late the meeting decided to conclude its deliberations by calling on Professor Pembrey to speak. The Professor deplored the flippant attitude adopted by the opposition; and in particular, Mr. Hughes, though he had contributed to the humour of the debate had contributed very little else. The opposition had entirely failed to answer the position put forward by Mr. Evans, with which he was in entire agreement. Finally, he hoped that members would show they had taken to heart the teaching they had received from the Medical School by voting solidly for the motion.

The opposer followed by the proposer then briefly replied to some of the arguments put forward, and the Chairman, summing up, said it was a difficult motion to vote on as there was some confusion about the meaning of both "civilisation" and "failure." Had civilisation failed in improving on former states or had it failed in achieving its ideal? The way members voted would depend very largely on which way they read the motion. He then put the motion to the meeting and there voted:—

For the Motion	...	22
Against the Motion	...	43

The motion was therefore lost by 21 votes and the meeting adjourned at 7.15 p.m.

Guy's Hospital Musical Society.

JUDGING from the sounds of song and music proceeding on certain evenings from the vicinity of the Court Room during the past few months, it has become increasingly evident that the Guy's Hospital Musical Society—recently revived after some two years' lapse—is in full and vigorous life again.

These activities culminated in the production of an excellent, if rather ambitious programme, in the Chapter House on three successive evenings of February 26th, 27th, and 28th, under the able direction of Mr. Herbert Y. Templeman, who has been appointed as Musical Director to the Society.

The programme, instrumental, choral and operatic, opened with an excellent rendering of Mendelssohn's Overture to "Fingal's Cave," by the orchestra, which was representative of the Visiting Staff (in the person

of the Superintendent himself), Housemen, Students, both Senior and Junior, and the Nursing Staff.

Then followed Stanford's "The Revenge," by the chorus with orchestral accompaniment.

This rather lengthy Ballad by Alfred Lord Tennyson, descriptive of the gallant single-handed fight of Sir Richard Grenville in his little craft, the "Revenge," already encumbered with his "ninety men and more lying sick on the ballast down below," against the whole might of the Spanish fleet, is apt to become rather tedious, but not for a moment was the interest allowed to flag. The many climaxes were well attained, but unfortunately a real pianissimo—that will o' the wisp of choral singing—was never attained, but nevertheless, great credit is due to all concerned, especially as with few exceptions and then in fortissimo passages, the words were clearly audible all over the hall—a by-no-means universal experience at such performances.

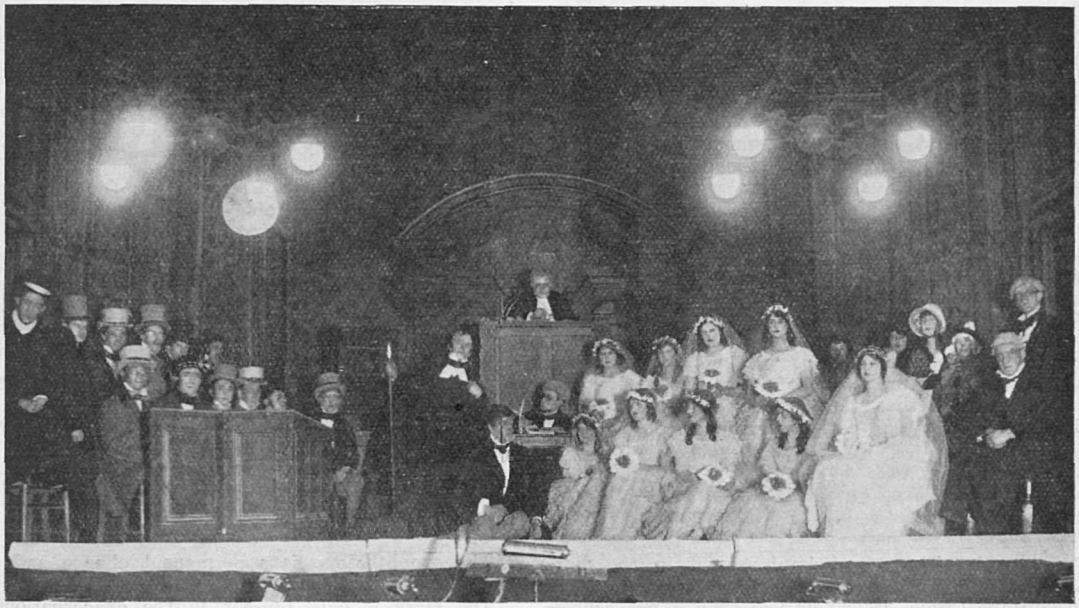
It is always difficult and perhaps unjust to single out individuals for special notice, but one cannot refrain from mentioning, in order to congratulate Miss Betty Eason, who in the rôle of Plaintiff, was repeatedly encored, and Messrs. Chas. E. Gallagher and Wm. H. Bradfield as the Learned Judge and the Defendant respectively.

Very rarely indeed in amateur circles, does one meet with such dramatic skill as was shown by Mr. Bradfield.

The rôle of "Usher"—probably the most exacting character in the opera, on account of the moderation required in order to avoid over-acting the part, was most ably fulfilled by Mr. Joseph Chamberlain.

The elocution and acting of the principals left little to be desired, but on the other hand, the chorus of Bridesmaids and Jurymen was seldom audible.

In conclusion, the President, Dr. John Fawcett, in an apt and witty speech, warmly congratulated



During the interval Mr. Charles Edney, the Acting Manager, thanked on behalf of the members of the Society, all those who had so effectively supported their efforts, and without whose help, the untiring energies of Captain and Mrs. Gallagher and of Mr. Templeman would have been without avail, and the funds of the Nurse's Cottage would have been denied the help so urgently needed.

He also appealed for support for the forthcoming matinée performance at the Adelphi Theatre in aid of the Hospital.

The Orchestra then rendered Percy Grainger's "Mock Morris," much to the delight of all present, who were insistant in their demand for its encore.

Then came the pièce de résistance of the evening—Gilbert and Sullivan's "Trial by Jury," also with orchestral accompaniment, performed by kind permission of R. D'Oyly Carte, Esq.

the members of the Society on the very successful performances—performances which had actually exceeded the expectations of the most optimistic. He said that they had had at last their Trial by Jury and their Revenge—and he appealed for increased active support of the work of the Society in the future.

Papers by Guy's Men.

Grant Massie, M.B., F.R.C.S. A Case of Osteitis of the Lower Jaw.—Proc. Roy. Soc. Med., xvii., 1924, Clinical Section, p. 19.

T. B. Layton, D.S.O., M.S. Case of Diabetes in which a Mastoid Operation was performed under Local Anæsthesia.—*Ibid.*, Sec. of Otology, p. 45.

J. V. C. Braithwaite, M.D., F.R.C.P. and Another. A Case of Erythrœdema Polyneuritica.—*Brit. Med. Journ.*, 1924, i., p. 423.

A Case of Local Tetanus.

G. M., æt. 8, fell from a tree in a field that had been used for pasturing horses and broke both bones in his right forearm. He was immediately conveyed to hospital where I saw him and decided to operate at once.

Both ulna and radius were broken an inch above the wrist joint and the upper end of the radius was protruding through a transverse wound just above the creases at the wrist. A long ditudinal incision was made and some fragments of bone removed. The wound was cleaned and the edges of skin excised, and after being washed with alcohol the bones were put in position. There was no rupture of tendons and very little foreign matter in the wound so I decided to close the wound with simple drainage. Put up in supination with flexion of the wrist upon a plaster gutter, a good position of the bones was obtained, and tube was inserted.

The next two days the wound was dressed and beyond a little serum the wound kept remarkably dry. There was at no time any sign of pus.

On the third day the nurse in charge reported some twitchings of the right fore finger and thumb, accompanied by severe pain. Upon dressing the case I found that the upper fragment of the radius had travelled forward and the median nerve was stretched across its sharp lower edge. Assuming that the fragments of bone had slipped and the irritation of the radius upon the median nerve was causing the contractures, I endeavoured, under an anæsthetic, to attain a better position. On account of muscular contraction I found it impossible to obtain a complete reduction so smoothed the ends of the upper fragments and removed a portion of the epiphysis of both radius and ulna. The limb was put up as before, and before closing the wound I made certain that the median nerve was free.

However, when the patient regained consciousness the contractions were still present and had spread to the other fingers of the hand. They then began to involve the muscles of the forearm, growing more and more painful. I now for the first time began seriously to suspect tetanus, and as there was no anti-tetanic serum within several thousand miles to consider what heroic measures I might adopt. Chloral, then hyoscine, and finally morphia had been used, latterly in big doses, but failed to produce any appreciable effect.

Twelve hours after the second operation I decided that the only course that afforded even a shadow of success was high amputation.

The wound at this time showed no signs of pus, but the skin edges were bluish and œdematous and there was a distinct œdema of the forearm.

I amputated just below the shoulder joint, and although the patient stood the operation well the contractions came on again in the stump and then the short muscles some twelve hours later, and about thirty hours after the operation the patient died.

No post-mortem was performed. An examination of the amputated part showed no pus, but an œdematous condition of all the tissues about the wound, coupled with a curious dark bluish discolouration. There was no smell.

Looking up the literature available (not very much here) I have not been able to find more than a brief reference to a local form of tetanus. Its apparent rarety, the rapid course (four and a half days), and the absence of pus lead me to think that it may be of some general interest.

It is a pity that the position of the median nerve retarded my diagnosis of tetanus, but I do not think the prognosis would have been affected. The diagnosis of tetanus was not confirmed bacteriologically, so the case is open to other explanations.

Exophthalmic Goitre.

DEAR Sir,—The recent improvement in the mortality following operations for exophthalmic goitre at the Mayo Clinic—it is now less than 1 per cent.—is attributed mainly to the use of Lugol's Solution (Iodine). Dr. Plummer's views on the chemical pahotlogy form the basis of this treatment and, as such, are of considerable interest.

Exophthalmic goitre is a disease, which in its early stages is due to an abnormal rather than an excessive secretion of the thyroid gland, but in the later stages so closely resembles adenomata with hyperthyroidism as to be distinguished clinically only by the local condition of the gland and the presence of the exophthalmos.

The picture of true exophthalmic goitre differs from that of mere hyperthyroidism both clinically and in the nature of the secretion of the gland.

Clinically these differences are to be found,

A. In the eye.
   1. The presence of exophthalmos.
   2. The stare.

B. In the nervous system.

The exophthalmos is a permanent change and does not entirely disappear when the disease is cured.

The stare is only present in the exacerbations of the disease, and when present is a contra-indication to operative treatment. It must be carefully distinguished from the exophthalmos. In the early acute stages the stare may be marked while the exophthalmos is slight, while in the intervals or in the late stages of the disease when it has become more or less quiescent, the stare may be absent while there is great exophthalmos.

Without much clinical experience of these cases it is difficult to describe this distinction, but as far as I can see, when the stare is prominent the expression shows great mental strain, almost anxiety, while when it is absent the expression may be almost placid in spite of the exophthalmos.

The nervous signs of exophthalmic goitre in the acute stages are an excessive emotionalism and restlessness. The patient cries often without adequate reason and is easily irritated, and at the same time is constantly making purposeless movements such as

unbuttoning a coat and doing it up again, crossing and uncrossing the legs.

(Sometimes it is difficult to decide whether a patient is suffering from exophthalmic goitre in the very early stages or from neurasthenia. Here the following test is used.

The patient is told to get up on a chair. The neurasthenic patient will assert that it is quite impossible, but on encouragement will do it with ease, while the patient with exophthalmic goitre will be quite confident, but will often fail on account of the true muscular weakness).

The theory is that the early stages of exophthalmic goitre are due to a dysthyroidism rather than a hyperthyroidism, and this dysthyroidism is shown by the stare and the peculiar mental condition. In the early stages the gland is throwing out excessive products in response to some unknown stimulus, while in the late stationary stages excessive products are thrown out because the gland has hypertrophied.

The secretions of excessive stimulation are incompletely formed, and do not contain their full quota of iodine. They are excessively toxic. The secretions of the hypertrophied gland are the same as those of the normal gland but in excess.

With the dysthyroidism of the early exacerbations a patient with a basal metabolism only 20 per cent. above normal may be a greater surgical risk than another with mere hyperthyroidism and a basal metabolism 80 per cent. above normal. Clinically the first patient will be losing weight, have no appetite, and will show the stare and the peculiar nervous condition described, while the second will be of normal weight and appetite, and, by comparison, almost placid.

On arrival at the clinic, all patients suffering from exophthalmic goitre, and those in which the diagnosis is in doubt, are put on Lugol's Solution in doses from 10—50 m. per diem.

The effect of this treatment is best seen in the most acute cases. After a period not usually extending beyond the eighth day there is a sudden improvement in the patient's condition. The emotionalism and the restlessness vanish, the appetite improves and usually there is a marked fall in the basal metabolism. Often this change occurs during the night and patients have been known to assert that they had been given morphia, so conscious are they of their improvement.

Since the adoption of this treatment no patient has gone into a crisis while at the clinic and last year only two, who arrived moribund, died without operation. The effect, in fact, of iodine, is to convert a patient suffering from the toxæmia of dysthyroid into one with simple hyperthyroidism.

In the later stages, where the gland has already hypertrophied, as well as in cases of adenomata with hyperthyroidism, iodine treatment does no good, and is in fact, often harmful. Moreover, these cases have the additional factor of degenerative visceral changes added to the picture. This explains why, while the operative mortality in exophthalmic goitre is less than 1 per cent. in adenomata with hyperthyroidism it was between 2 and 4 per cent.

Operation is looked upon as only one, though admittedly the most important, of the therapeutic measures in the treatment of this disease, and the time and nature, be it a hot water injection, a simple ligation or a partial excision of both lobes, are decided upon and ordered by the clinician. Both the pre-operative and post-operative treatment are in the hands of Dr. Plummer and his assistants, and it is to this continuity of control, as much as to the improvement in operative technique that the very low mortality is ascribed.

B. L. LAVER.

Reviews.

Practical Dental Histology and Bacteriology. By H. C. MALLESON and A. BULLEID. Published by John Bale, Sons and Danielsson, Ltd., Oxford House, 83—91, Great Titchfield Street, London, W.1. *Price 7s. 6d. net.*

THE time has come, or is very near at hand, when Dental Histology and Bacteriology will take their respective places in the daily routine of dental practice, and Messrs. Malleson and Bulleid, in compiling a manual for Dental Students, have done so with a thought for the future of dental science.

This small book of very useful hints is, in my opinion, a step towards that final development of medical science, at which all loyal members of the dental profession aim, and it will also aid a closer relationship between the two professions.

The book is well compiled, and is excellent for its attention to detail, and its many beautiful illustrations, not to mention the care which has been taken, to place diagrams where they are most needed.

Detail might be expected by many who practise dentistry, but in this respect the authors have let no moss grow on the stones, they have carefully placed within easy reach of all those, who wish to investigate dental science, a means whereby their object may be attained, and a stimulus to further research.

There are too few of these small manuals, possibly because the demand is lacking, but the time will come when the dental surgeon will long for a greater knowledge, than that which he gains by his hospital career.

In Part I. Mr. Malleson has given a very fair idea of practical Histology and when one realises the care which he must have exercised in obtaining his very beautiful microphotographs, one fully appreciates the value of a correct diagnosis which is considerably helped by a good histological section.

The planning of Part I. is good, taking the microscope as a foundation and working up to the more difficult preparation of such sections as Nasmyth's membrane, no small detail has been overlooked; he even tells us where we may obtain the best type of razor for section cutting.

For those who are practising, and who wish for a gentle relaxation from the "humdrum of daily routine practice," an hour in the laboratory, with Part I. as a guide, will revive their sapped energies and make them feel new men.

Mr. Bulleid has shown in Part II. the value of organism isolation, and it is evident that modern dentistry must keep pace with the times, and for that reason, the Bacteriologist must be at the beck and call of the Dental Surgeon.

The useful hints about the growth of organisms and the correct technique of collecting the infecting organism, is of great value to all practitioners, not only to the dental, but to the pathologist also. For instance the technique of acquiring the organism from the apex of an extracted tooth, is simple to some no doubt, if all the detail be observed.

Detail in dentistry is the beginning of perfection and for that reason the authors can be justly proud of their efforts to arouse interest in another side of the subject.

Sport.

Rugby Football.

Guy's Hospital v. Birkenhead Park.

THE team that played Birkenhead Park on the Northern Club's ground on March 1st was not a representative one; those who turned out were the men who had recovered from the strain of the Thursday's Cup Tie, and again some regular players were engaged at the Hospital and could not therefore make the journey.

W. D. Doherty, B. G. Scholefield, E. H. Fouraker, J. G. Van Schalkwijk, G. Fellowes-Smith, and De Wet Vorster were away. We were told that the Park had to do without a regular three-quarter in Maxwell and a forward, one named Cottam. There was present, though, in great form, our old friend W. H. (Bill) Taylor. Pity we could not have had him with us on the Thursday previous. H. M. Locke (England's centre) was playing for the home side, and outside to him was W. M. Lowry, once photographed with England's team and then placed first reserve. Lots of players have, in their time, just missed premier honours, but scarcely has one missed by such a close shave as this. Next to Locke played R. Stapledon, a Dark Blue athletic representative. Tall scoring ended the play, though strange to relate the first half was entirely devoid of score.

The second half was a different story, tries came fast and often Stapleton was the first to get over, followed by Locke; Lowry converted this last one. Graham-Davies then put on 3 points for ourselves. Next Lowry, Neale and Law gained tries, and as the three were converted, altogether we lost by 3 goals and 2 tries (21 points) to 1 try (3 points).

One more match on March 29th, v. Swansea, and we shall ring down the curtain for the season. The men who went to Birkenhead on March 1st are as follows, and we congratulate them on so soon after their very hard game against Bart.'s doing their best for Guy's :—

Guy's Team.—P. D. B. Spence, J. W. Finnemore, C. L. Steyn, H. Graham-Davies, W. Orsmond, W. Meissner, E. E. Neser, N. M. Holloway, G. G. Cameron, G. G. T. Tregarthen, J. W. Schabort, E. W. Hutchinson, F. F. Brayfield, M. H. Baird, S. P. Jacobson.

Guy's Hospital v. Bart.'s.

Semi-Final Cup Tie.

IN 1904 we fell from the proud position of Cup Holders, the year that, perhaps our greatest player, E. Morgan, was captain, and London were our conquerors. An equal struggle for supremacy between London and ourselves went on, they holding the supreme position alternately with ourselves till 1909 along, then 1910, 11, 12, and 13, each year we retained the premier honours till 1914. London again tumbled us out of the leading place. Then came the war, and no more Cup Ties till 1920. That year and 1921, 22, 23, again we topped the pole, and now, another 4, mark your, 1924, Bart.'s have in the semi-final given us our quietus, and not because we are out of it do I praise our opponents, but because no man could doubt that they were the distinctly better side. A team play as well as its opponents allow it to. We, on February 28th, were not allowed to do much. The "Gods," moreover, rather unfairly, it seems to me, invariably favour those who play the best. On this occasion Bart.'s won the toss and the wind, and W. F. Gaisford used it. He also kicked the penalty, and the bally ball hit the cross bar and tumbled over the proper side. Neser had four shots, one fell just beneath the bar and one looked at the upright and sheered off outside it. Their try seemed doubtful only because there was a moment's delay in giving it. One saw five players on the ground, one had to sort them out before giving too hurried a decision. Now our comparison ends, for never did did we look like getting a try ourselves.

The game commenced with Neser taking shots at Bart.'s goal, and gradually Bart.'s worked us out of their 25, and showed we had got up against a pack who were in rare form in the tight and loose. One must mention the excellence of A. W. L. Row, the judgment and leadership of C. W. W. Parker, and W. S. Morgan's play. Added to these fine forwards was the kicking of Gaisford; it was superb and took it out of our fellows no end. Then came Gaisford's goal, and five minutes before half-time, after good passing by the Bart.'s backs, Neville forced his way over.

We commenced the second half with tails erect, but soon it was evident the wear and tear of the first 40 against the wind and Gaisford's boots had taken the sting from our men. There was much interesting football. There were some runs by the Bart.'s backs, but none by us. My mind cannot recall more than about half a dozen times when the ball came to Meissner. Occasionally the backs shaped to attack, but nothing more, our splendid three-quarter line was no use; you must play with the ball, and this they never got. Spence was not at his best. Van Schalkwijk below form, he was damaged again, Meissner not so quick as usual. We had some narrow escapes this second half and occasionally we got to their line. Neser and Graham-Davies tackled well and we did some good defensive work. That is all! No forward

played so well as G. G. Cameron—he was the real live man among the forwards. B. G. Scholefield also played well. Holloway in the tight did more than his share. De Wet Vorster was occasionally in the picture. W. D. Doherty played himself to a standstill, he flogged himself and his pack to the end, but theirs was a hard furrow to plough. The Bart.'s forwards never allowed them any latitude, and all one could do was to admire the courage and persistence with which the team tried to achieve success against a XV. who played as one man.

Mr. Roberts, of Llanelly, was the referee; he was very strict, still no one minds that, it is a very difficult game to referee, and if you would ever like to do the job you will want to practise plenty beforehand.

Now the Final between Bart.'s and King's will have taken place just previous to our going to press. Should the former be the victors, we congratulate our old enemies on a success richly deserved. Should King's be the winners, we congratulate our new enemies on achieving where we failed, and hope to cross swords or "legs" with them next year, when once again the domicile of the Cup will be disputed.

Guy's Team.—P. D. B. Spence, G. Fellowes-Smith, H. Graham-Davies, C. L. Steyn, J. W. Finnemore, W. Meissner, J. G. Van Schalkwijk, W. D. Doherty, E. E. Neser, N. M. Holloway, B. G. Scholefield, E. H. Fouraker, G. G. Cameron, W. De Wet Vorster, J. W. Schabort.

Association.

Guy's "A" v. Middlesex "A"

(Semi-final) Junior Hospital Cup.

ON Wednesday, February 27th, Guy's "A" played Middlesex "A" in the semi-final of the Junior Hospital Cup and won by 2 goals to 1.

Guy's attacked strongly during the first half, and at half-time led by 1 goal to nil, the result of a mis-kick by one of the Middlesex backs. In the second half both teams scored, Guy's goal being scored by a Middlesex man.

Ginn and Jones both excelled themselves and got through an amazing amount of work. The two backs, Edwards and Wakeford, tackled and passed well.

Guy's Team.—F. H. Channon, I. W. Edwards, C. A. Wakeford, J. D. Cambrook, H. A. Ginn, W. Ruzzak, E. N. Sharpley, O. Plowright, B. S. Mead, D. W. Calder, W. D. Jones.

Guy's "A" v. R.M.A. "A"

ON Saturday, March 1st, Guy's "A" visited the R.M.A. "A" at Woolwich, and had a glorious day out by winning by 22 goals to nil. The goals were obtained by the following—Walters 7, Calder 4, Horton Parr 4, Sharpley 4, Gray, 2, and Gonsalves 1.

Guy's Team.—D. B. Smallshaw, R. H. Hancock, L. Walters, —, Parker, H. A. Ginn, W. Ruzzak, E. N. Sharpley, D. W. Calder, J. Gray, G. J. Horton-Parr, P. J. Gonsalves.

United Hospitals Hare & Hounds v. Orion Harriers "A."

THIS match was run at Chislehurst, on Wednesday, February 13th, over a course of 5½ miles.

The Hospitals' team were weakened considerably by the absence of J. H. Chitty, M. E. M. Jago, R. C. Lightwood and A. Simpson, the latter two arriving just after the race started.

Rake and Lawrie led the field for two miles, when Callum assumed command, with Darley in close attendance. Holmes passed Rake two miles from home.

Result—

1. J. A. Callum (O.H.), 33 mins. 19 secs.
2. W. W. Darley (Bart.'s), 33 mins. 34½ secs.
3. T. E. Holmes and A. J. Lawrie (O.H.), 34 mins. 8 secs.
5. G. W. Rake (Guy's), 34 mins. 26 secs.
6. N. L. Williams (O.H.), 34 mins. 34 secs.
7. B. W. Knott (O.H.), 35 mins 15½ secs.
8. W. D. Jones (Guy's), 35 mins. 30 secs.
9. I. L. Jones (O.H.), 35 mins. 53½ secs.
10. B. Selby (O.H.), 35 mins. 57 secs.
11. R. G. West (Bart.'s), 37 mins. 21 secs.
12. J. G. S. Thomas and J. D. S. Thomas (Guy's), 38 mins. 20 secs.
14. A. W. Jones (O.H.), 39 mins. 58 secs.

Placings—

1. O.H.—1, 3, 4, 6 and 7=21 points.
2. U.H.H. & H.—2, 5, 8, 9 and 10=34 points.

M. E. M. Jago and C. L. Worthington laid the trail and judged the race.

Guy's Hospital Cross Country Section.

THE Inter-Collegiate Race for points towards the London University Sports was held at Perivale, on Saturday, March 1st, over 7½ miles.

Teams were supposed to be of six men, five to score, but only five were able to take part for us, and we were concerned lest mishap should prevent them all finishing.

University College have an exceptional team at the moment and were good winners, but Guy's, in spite of every member complaining for some reason or another, managed to obtain 2nd Place.

Chitty cast a shoe after ½ mile, thereby losing considerable ground, while Jones was ill on both occasions on which we made the ascent of a very steep hill.

Result—

1. J. B. Cochrane (U.C.), 45 mins. 1 2-5 secs.
2. G. H. McCormick (U.C.), 45 mins. 22 secs.
3. R. H. Smith (U.C.), 46 mins. 17 secs.
4. M. E. M. Jago (Guy's), 47 mins. 5 secs.
5. F. B. Mallinson (K.C.H.), 47 mins. 45 secs.
6. R. G. Zissel (K.C.H.), 48 mins. 21 secs.
7. G. W. Rake (Guy's), 49 mins. 8 secs.
8. Ferguson (U.C.), 49 mins. 21 secs.
9. Scott (U.C.), 50 mins. 2 secs.
10. Lawrence (U.C.), 50 mins. 37 secs.
11. J. G. S. Thomas (Guy's), 51 mins. 11 secs.
12. J. H. Chitty (Guy's), 51 mins. 24 secs.
13. Heppell (K.C.H.), 52 mins. 6 secs.
14. Hill (L.S.E.), 52 mins. 35 secs.
15. Forster (K.C.H.), 52 mins. 44 secs.
16. W. D. Jones (Guy's), 53 mins. 13 secs.

About 24 men started, representing 5 teams.

Placings—
1. U.C.—1, 2, 3, 8 and 9=23 points.
2. Guy's.—4, 7, 11, 12 and 16=50 points.
3. K.C.H.—5, 6, 13, 15 and 22=61 points.

London School Economics and Battersea did not close in.

Points for the Sports—
U.C. 5; Guy's 3; K.C.H. 1.

The Kent Hughes Cup.

THE Kent-Hughes Cup Race for the Inter-Hospital Cross-Country Championship was held at Chislehurst, on Wednesday, March 5th, over 7 miles.

The number of men who turned out for the Hospital was disgracefully few, and we were beaten by Bart.'s for the honour of having most men running.

The pace was extremely hot from the start, for which Jago was responsible, Lightwood and Darley being close up and taking the lead just before a mile.

At 2 miles the field was well strung out, with Lightwood leading Jago by 10 yards, Darley being 50 yards in the rear and Wilson next.

Jago again took the lead at 3¼ miles, and the pace dropped considerably up the ploughed land, most of the field being reduced practically to a walk up the very steep hill.

Lightwood and Jago ran together on the road (4 miles), but at the foot of the long climb up to the Woods, past the "Rectory," the former drew away to win comfortably in the end by 80 yards, Wilson being the same distance behind Jago.

We congratulate Lightwood on his fourth successive individual win, and Guy's for winning the Cup for the fourth successive year.

For Guy's, Messrs. Rake and Chitty ran excellently, but the performance of Jones in finishing ninth was perhaps best of all.

J. D. S. Thomas had the misfortune to injure some muscles when running well, 1½ miles from home.

London laid the trail and Dr. H. A. Munro and Mr. Fowler-Dixon acted as Judges.

Result—
1. R. C. Lightwood (K.C.H.), 40 mins. 54 secs.
2. M. E. M. Jago (Guy's), 41 mins. 22 secs.
3. D. A. Wilson (Middlesex), 41 mins. 50 secs.
4. W. W. Darley (Bart.'s), 42 mins. 20 secs.
5. G. W. Rake (Guy's), 43 mins. 5 secs.
6. J. H. Chitty (Guy's), 43 mins. 9 secs.
7. J. R. Beazley (Bart.'s), 43 mins. 20 secs.
8. R. H. Yelf (K.C.H.), 43 mins. 27 secs.
9. W. D. Jones (Guy's), 43 mins. 45 secs.
10. A. Simpson (K.C.H.), 43 mins. 58 secs.
11. J. G. S. Thomas (Guy's), 44 mins. 7 secs.
12. W. T. R. Chapman (K.C.H.), 44 mins. 35 secs.
13. J. L. M. Savage (Bart.'s), 44 mins. 53 secs.
14. R. G. West (Bart.'s), 45 mins. 12 secs.
15. A. C. MacLeod (Middlesex), 45 mins. 19 secs.
16. H. N. Walker (Bart.'s), 45 mins. 22 secs.
17. C. S. Wise (Bart.'s), 45 mins. 58 secs.
18. J. E. Snow (Bart.'s), 46 mins. 9 secs.
19. S. E. Theis (Guy's), 46 mins. 23 secs.
20. H. M. Royds-Jones (Middlesex), 46 mins. 25secs.
21. G. I. Wilson (Middlesex), 46 mins. 48 secs.
22. B. M. Tracey (Bart.'s), 47 mins. 25 secs.
23. M. D. Young (Bart.'s), 47 mins. 36 secs.
24. K. F. Mills (Middlesex), 47 mins. 44 secs.
25. A. C. Perkins (K.C.H.), 50 mins. 56 secs.
26. H. L. Sparrow (K.C.H.), 51 mins. 13 secs.
27. C. B. Nicholson (Middlesex), 51 mins. 52 secs.
28. J. D. S. Thomas (Guy's), 51 mins. 59 secs.

Placings—
1. Guy's.—2, 5, 6, 9 and 11=33 points.
2. K.C.H.—1, 8, 10, 12 and 20=51 points.
3. Bart.'s.—4, 7, 13, 14 and 16=54 points.
4. Middlesex.—3, 15, 17, 18 and 19=72 points.

The Cup has now been held by Guy's 19 times out of the 32 years during which the competition has been held, and continuously since 1909 except for the year 1914, when London were the victors.

United Hospitals Sailing Club.

ON Thursday, February 21st, a meeting of students from the various hospitals who were interested in sailing, was held at Mr. W. A. Lister's house, 24. Devonshire Place. At this meeting it was decided to form a United Hospitals' Sailing Club, with the following main objects:—

(1) To encourage small boat sailing and to enable men in the various hospitals who are keen to meet and discuss subjects of mutual interest.

(2) To provide facilities whereby members without boats may get in touch with owners belonging either to this or to other clubs who may be in need of a crew.

Many questions arising out of these were also discussed, and it was hoped in the course of time to establish a small colony of hospital boats at some convenient spot on the East Coast.

Organisation was next considered, and it was thought that the executive needs of the Club would be best served by a Chairman, a Secretary, and a Representative from each Hospital. W. A. Lister, of London Hospital, was thereupon elected Chairman, and W. H. Evans, of the same Hospital, Secretary. Invitations were sent to several well-known yachtsmen in the profession to be our President and Vice-Presidents respectively.

The general policy of the Club will be to hold meetings about once a month throughout the winter at which papers on subjects of interest, logs of cruises, etc., will be read by members. It is hoped that the vast experience of some of those whom we have asked to be our Vice-Presidents will serve to make these meetings very attractive. Prizes are to be given for the best paper or log of the year. We want members to go and sail for all they are worth in the summer, and then come and talk about it in the winter. The first of the series of meetings has been arranged for 8 p.m. on Wednesday, March 26th, at Anderton's Hotel, Fleet Street. The subject will be a discourse by W. A. Lister on the small boat exhibition which takes place earlier in the same month.

The subscription, anticipating a membership of 30, was fixed at 5s. per annum. The Hospital representative (E. H. Roche) will be pleased to enrol as many members as possible and receive their subscriptions.

Marriage.

RIX—JAMESON.—On March 1st, at St. George's Church, Southwark, Captain Howard Vivian Rix, late 16th Rajputs, to Norah Dinsdale Jameson, of Sidcup, Kent.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *March 29th, 1924.* *Number 932*

An Appreciation of two Guy's Men.

BY A CONTEMPORARY.

Daniel Herbert Forty.

Henry Blatherwick.

THE passing of these two Guy's men, both of whom exercised a far-reaching influence in their day, and yet each in a different way, deserves more than the brief notice recorded in your issue of the 2nd inst. Daniel Forty, who died quite suddenly at Paignton, entered Guy's in 1870, one of the one hundred and twenty entries of that year. These were all "full" students and the number has never, we believe, been equalled.

Forty very soon took a place amongst the leading men, was awarded the Treasurer's Gold Medal in Medicine, passed the Colleges amongst the first of his year, and was appointed R.O., and later H.S. and H.P. It was not that Forty filled these positions with ability, but it was the manner in which he discharged the duties that earned the esteem of his contemporaries. The splendour of his character shone through his every action and those who knew him well regarded him with an affection which increased as years sped on. The 1870 year contained a large number of men who have risen to leading positions, and it was amongst these that Forty had his friends, and by them he was never forgotten. One remarked on reading of his death, "I have not seen him since we were students, but I remember him well, for everyone loved Forty."

And so it was through life; in his practice at Wotton-under-Edge he was greatly esteemed and loved; and during the two short years of his retirement in Paignton the hold he gained on the community was shown by the large attendance at the funeral.

Mr. E .Clowes who was in partnership with him for 16 years, writes as follows :—

"I joined Daniel Herbert Forty in partnership at Wotton-under-Edge, Gloucester, in January, 1899, and worked with him in general practice until 1915, when I joined the R.A.M.C. During the time I practised with him I learnt all the points of a very sterling character.

Forty was, in my opinion, one of the finest types of general practitioners it has been my good fortune to meet; his transparent honesty, his tact, his great enthusiasm would alone make him stand out above his fellows. It was in his work that one saw all the splendid traditions of a Guy's man exemplified at almost every turn of the day.

As a clinician, with his perseverance, patience and skill, one saw him at his best, and as an old Gold Medallist in Medicine he was most accurate and thorough in his investigation of a case, and seldom it was that his diagnosis was at fault; this, too, at a time when the services of a Pathologist or Bacteriologist were not so readily available as at present.

Not only in Medicine was he excellent, for some of the emergency operations which had to be performed in the early period of my practice with him, would, I think, rather appal the younger generation of men. On more than one occasion we have performed laparotomy for a ruptured gastric or duodenal ulcer, under the most trying conditions and surroundings—want of light, suitable table, dressings, sutures, etc.—and yet the patients made uneventful recoveries. I also remember a case in which the right kidney and a fair length of small intestine had to be removed, in the case of a man who had been gored by a bull, and that patient recovered and is alive and well now, I believe.

It was in such sudden emergencies as the above that one admired the courage, resource, and skill he displayed under such adverse and trying circumstances.

A man of good presence and great charm of manner, without a particle of affectation, his sympathy and great regard for the feelings of others and his unswerving friendship made him beloved alike by his patients and colleagues."

Henry Blatherwick.

"Harry Blatherwick was, in the very best sense of the word, a sportsman, there was nothing mean or petty in his make-up; for Guy's and its good name he cherished the deepest reverence. His active well-knit frame, with his power of quick decision and sound judgment made him a leading Rugby player in which game he took a leading part. As House Surgeon—there was but one in his time—his leadership became conspicuous, and he won the respect and esteem of the Dressers—then a formidable body of twelve and many of them qualified—and was trusted to an unusual extent by the Staff. He was so tactful, so efficient, so courteous and generous and helpful towards his juniors, that he won the regard of everyone. These great qualities gained for Blatherwick the rare distinction of having his photograph purchased, framed and hung in the Dressers' Room by his colleagues, a distinction shared only with two others—Charles Higgins and Thurston, of Ashford.

After taking the Fellowship of the College he joined Reynolds Ray in practice at Dulwich, and later moved to Kensington. From a long and painful illness he so far recovered as to attend the dinner of "Our" Club in 1922, but we missed him in the following year, for again he was laid by with a recurrence of the illness from which he never recovered."

Two very different men—the one shy, retiring, and yet with a deep, almost reverent sense of duty which no personal consideration was ever allowed to affect, Forty touched the spiritual side of man with rare intuition, bringing with him an indefinable something which was felt to come through him from a diviner source.

The other, planted upon the same rock, equally conscientious, with as high a sense of duty, presented to the world a bolder front. Had he been younger Blatherwick must have taken a leading part in the Great War and thus followed in the footsteps of his father, who was a medical officer in the army, and was for sometime stationed at Netley where Harry B. spent his early boyhood.

Abstract of Summary of Anæsthetics and Operations for the Year 1923.

THE number of cases in which general anæsthetics were administered was 8,746, among which were 95 intratracheal insufflations of ether, and 43 intratracheal insufflations of ether plus a general anæsthetic. Spinal analgesia was also employed on 7 occasions, and on 27 occasions spinal analgesia followed by a general anæsthetic. On 2 occasions nasopharyngeal ether plus a general anæsthetic was employed. The total number of operations was 8,407 in Wards (Bright Ward excepted), Special Departments, Out-Patient Departments, and Surgeries. There were five deaths which were reported to the Coroner as possibly due to the anæsthetic.

There have been 8,836 cases of general anæsthesia in the Dental Department, 7,454 under nitrous oxide gas, and 1,382 under ethyl chloride.

Operations done on the medical side are entered under the Assistant Surgeons corresponding to the Physicians or Assistant Physicians in charge of the Wards, the Table below showing how many operations are actually performed in these Wards:—

Anæsthetics.

C.E.	381
Chloroform	121
Ethanesal	1
Ether (including Gas and Ether)	162
Gas and Gas and Oxygen	1260
Intratracheal Insufflation of Ether	95
Intratracheal Insufflation of Ether plus a General Anæsthetic	43
Naso-Pharyngeal Ether plus a General Anæsthetic	2
Spinal Analgesia	7
Spinal Analgesia followed by a General Anæsthetic	27
Other Anæsthetics and Sequences	6654
	8753

Administration of Anæsthetics.

Staff Anæsthetists	1988
Visiting Staff	209
House-Officers	6116
Other Qualified Men	440
	8753

Operations Tabulated According to Wards and Departments.

Astley Cooper	336
Cornelius	256
Lazarus	334
Job	419
Naaman	438
Luke	367
Patience and Samaritan	403
Evelyn	222
Charity	377
Dorcas	469
Lydia	353
Martha	379
Eye Wards	916
Addison	40
Mary	35
Stephen	59
Esther	38
Queen Victoria	516
Children's Ward	12
Isolation	7
Out-Patients	1518
Front Surgery	837
Back Surgery	31
Nurses' Sick Room	45
	8407

Turning to the General Wards it may be noted that the totals of Operations are as follows:—

Surgeons	841
Assistant Surgeons	1046
Specialists	82
Operators	1053
House-Surgeons and Assistant House-Surgeons	738
Dressers	482
	4242

The remaining 38 operations, bringing the total up to 4,280 were performed by other operators.

It should be remembered that no account is taken of operations done either under local anæsthetics or without anæsthetics at all.

Operations in the Obstetric Department (Queen Victoria and Patience Wards) number 551, of which 237 were performed by the Obstetric Surgeons, 111 by the Obstetric Assistant, 111 by the Gynæcological Assistant, 86 by the Obstetric Residents, 1 by Dressers, 1 by Pupil Midwives, while 4 operations were performed by other operators.

The operations upon Ophthalmic cases in the Wards, number 132, of which 60 were done by the Ophthalmic Surgeons, 40 by the Ophthalmic Assistants, 25 by the Ophthalmic House-Surgeon, 3 by Ophthalmic Dressers, and 4 by other operators.

There were 791 operations for Throat and Ear Diseases in the Wards, 369 by Surgeons, 281 by Clinical Assistants, 108 by the House-Surgeon, 28 by Dressers, and 5 by other operators.

In the Orthopædic Department 126 operations were performed, 88 by the Surgeon of the Department, 13 by the Orthopædic Registrar, and 25 by the Clinical Assistant.

In the Genito-Urinary Department 71 Ward operations were performed, 45 by the Surgeon, 13 by the Clinical Assistant, 5 by the Genito-Urinary House-Surgeon, 4 by Dressers, and 4 by another operator.

In the Children's Ward 12 operations were performed, and there were 45 operations performed in the Nurses' Sick Room.

In the Venereal Department there were 8 Ward operations, and 5 operations were performed on patients in Skin Beds.

In the Front and Back Surgery 868 operations were performed, 372 by House-Surgeons and Out-Patient Officers, 481 by Dressers, and 15 by other operators.

In the General Out-Patient Department 596 operations were performed, 543 by Dressers, 17 by Assistant House-Surgeons, 1 by Surgeons, and 35 by other operators.

In the Special Out-Patient Departments, one operation was performed by the Gynæcological Assistant in the Obstetric Department.

There were 787 operations upon Throat and Ear cases, of which 24 were done by the Surgeon, 46 by the Clinical Assistants, 36 by the Ophthalmic House-Surgeon, and 681 by Dressers.

In the Orthopædic Department 131 operations were performed, 22 by the Surgeon, 48 by the Orthopædic Registrar, 39 by the Clinical Assistant, and 22 by Dressers.

One operation was performed in the Children's Department.

One operation was performed in the V.D. Department, and in the Skin Department one operation was performed.

Papers by Guy's Men.

Frank Cook, B.Sc., M.B., B.S., F.R.C.S. The Toxæmias of Pregnancy. Hunterian Lecture, delivered at the Royal College of Surgeons, January 28th, 1924.—*Brit. Med. Journ.*, 1924, I., p. 372.

A. Ralph Thompson, F.R.C.S. A Plea for early operation in cases of enlarged prostate.—*Medical World*, March 14th, 1924, p. 35.

Religion and the Growth of Knowledge.

Paper read at the Meeting of the Students' Christian Union, Guy's Hospital, March 27th, 1924, by J. S. HALDANE, M.D., LL.D., F.R.S.

WE live in a time which is characterised by the fact that multitudes are quietly drifting away from the forms of religious belief which satisfied the great majority of a former generation. The growth of knowledge in every direction makes it increasingly difficult to conform to these forms of belief without dishonesty, or even to countenance them by attendance at churches of which the services and creeds embody them. Minor differences in religious belief have ceased to be of general interest. The matters which separate so many from existing churches and creeds go much deeper; and I am one of those who are unable to belong to any existing church.

All existing religious creeds have this in common, that they embody beliefs in supernatural or miraculous events, even if these events are confined to the past. To our forefathers the occurrence of supernatural events seemed almost an every-day matter. The growth of knowledge and scientific investigation has gradually produced the wide-spread conviction that such events do not occur, and that events which were formerly supposed to be supernatural admit of rational explanation. It is true that there are many persons who still hold to such beliefs as spiritualism or vitalism—beliefs which imply breaches in the order of Nature; but the number of those persons is constantly diminishing. It is as one who believes whole-heartedly in the rationality or self-consistency of what is real that I wish to discuss religion.

We may properly call a man's religion, if it is true religion, the philosophy of his life. It embodies the ultimate guiding principles on which he tries to act. He may conform outwardly to traditional religious beliefs; but if he does not make his professed religion the guide of his life it is not religion, but a mere sham. Many of us have ceased to conform, even outwardly, with traditional religious beliefs; and it might seem that for this reason we have no religion, and can at any rate no longer call ourselves Christians. I shall try to show that this is not true: that religious belief is not irrational, but rational belief; and that Christianity is essentially a thoroughly rational belief, so that in proportion as we become rationalists we also become Christians. I shall further try to show that the great source of the present weakness in the influence of Christian churches is that they continue to keep in the foreground what are mere accidental concomitants of Christianity.

I will now put before you what seems to me to be the essential element in religious and Christian belief. Religious belief is founded, not on any external revelation such as theologians speak of, but simply on our own observations as to our conscious relations with fellow men and with what we call Nature. In other words it is founded on, or embodies, our own experience. When we consider our own conscious behaviour we find that it is not merely determined by our own individual interests, but also, and to a predominating extent, by those of others. From earliest childhood we all naturally wish to be useful to others; and we all value, and seek to improve upon, our relations to Nature. Neither a child, nor a grown man or woman, is happy without some "job," though sometimes the jobs they find for themselves are rather unfortunate. It is the desire to be useful, or to reach such a degree of efficiency that they can in future be useful, which in the main moves them. The desire to be wanted in our world is part of our nature.

The real motive of all scientific investigation is the desire to be of use to fellow men or to get into closer touch with Nature. If there is any reward sought for it is that of having attained these objects. In any other occupation the predominating motive is the same. We are usually satisfied with our respective jobs in proportion as we believe that we are being really useful, although we may aspire to other jobs in which we think that we could be still more useful. In connection with this predominating motive we do not forget that in order to perform our duties efficiently we must, in one way or another, have sufficient

individual remuneration. The remuneration must, in some form or other, accompany the duty; otherwise it cannot be carried out.

We find ourselves in a world with what we call duties all round us; also with what we call values of all kinds calling upon us for their preservation and improvement. The duties and values are just there as a matter of experience; it is no theory or principle from outside that reveals them to us. They are part of our nature and that of the environment in which we find ourselves. We perceive the feelings and interests of others just as naturally as we perceive our own feelings and interests. We also perceive and attach value to the beauty and order of the whole of the world of Nature which we find around us.

The matter has another side. Just as we perceive the interests of others as clearly as our own interests, so we perceive that others care for our interests, and that we are dependent on Nature for our maintenance. A child looks unhesitatingly for the loving care and protection of its parents and others; and we all depend on one another and on Nature in a similar way. We take the honesty and reliability of those around us as a matter of course. We do not doubt that on the whole they will do as they would be done by. Were it otherwise all human society would fall into ruin, and all possibility of progress would be at an end. It is not the policemen or judges who make men honest. Against general dishonesty they would be absolutely helpless, even if they were honest themselves. It is just a fact of experience that we can rely, on the whole, on our neighbours and on Nature.

Now what does all this imply? Surely it is that we are more than mere individuals—mere units struggling more or less vainly to do what we imagine is right in a foreign universe? That universe itself is with us in our struggle. To use the language of the Christian religion, God is in us and the persons and things around us, and in so far as we realise this we have no need to fear anything. Individual death is not the death of God who is within us and identified with us. Neither for ourselves nor for others need we fear death, but only the separation from the sight of God which is implied in not trying to play manfully and honourably what we find to be our part.

To many of us language like this will, I know, seem like mere metaphor. But it represents a practical philosophy which has inspired and carried onwards the western world through many generations, and has continued to sustain men through the greatest trials to which they are exposed. This practical philosophy appears to me to be also sound theoretical philosophy when it is freed from mere accidental additions.

To come to objections on the part of what takes itself to be simple common sense, is it not clear that the physical world around us is nothing but a mechanical world, the laws of which have no relation whatever to moral considerations? This, at any rate, seems to be the conclusion to which the study of physics and chemistry leads us.

Now it is true that in what we artificially separate off as physical and chemical phenomena we find little or no sign of anything but blind mechanical behaviour. But physics and chemistry expressly exclude from their consideration all reference to life and conscious activity. In connection with the present discussion this omission is fatal; for it is precisely in connection with the relation of what we call physical and chemical phenomena to our conscious life that the discussion arises. As a matter of fact, also, we make use of our physical and chemical knowledge for the very purpose of obtaining aid in studying our characteristic relations to our environment and bringing these relations into increasing harmony with social ends. The spring of our physical and chemical knowledge itself has been the existence of the relationship between Nature and ourselves.

When we study physics and chemistry in their direct relation to life and conscious activity we are at once brought into contact with this relationship. In biology generally, and very particularly in the study and practice of Medicine and Surgery, we have constantly before us the outstanding fact that Nature, far from being indifferent to human interests, furthers them continuously. The great merit of Hippocrates was that he grasped this principle clearly in its relations to scientific Medicine. He rejected mechanical atomism as an intrusion of philosophy into Medicine; and he may be truly said to have been the founder, not only of scientific Medicine, but also of scientific Biology generally. To him Nature appeared as a healer and a sustainer of life—not as something indifferent to life.

In my books, and on various other previous

occasions, I have pointed out that the mechanical conception of Nature breaks down completely when we endeavour to apply it to the relations between living organisms and their environment. This is so simply because organic or physiological effects cannot be represented as the mere resultants of causes in the environment. The whole life of the organism, including all its various other relations to environment, is always involved in the effect; and the only way in which we can reach scientific clearness about physiological phenomena is by assuming that environment and organism are an organic whole which is constantly tending to maintain, develop, and reproduce itself. This, however, is in reality just what Hippocrates assumed, and what, as it seems to me, every scientific medical practitioner is forced to assume. By mere mechanical or chemical interference from outside we could do nothing to restore the amazingly delicate structure and functional co-ordination of parts of the body which are injured by disease or accident. But Nature is always tending to perform this operation and at the same time to repel infection and other harmful influences. If we study the methods of Nature we are in a position to step in and aid them very essentially. This is the art of the physician or surgeon, which is thus based entirely on the observation of Nature's successes and failures, and the discovery of methods for aiding her.

It is often argued that what we here call Nature is only the resultant action of an immense amount of delicate machinery, evolved as the result of a blind struggle for existence during countless ages. I sometimes wonder whether those who continue to use this argument are capable of thinking at all. If we assume that the living body is a mass of the most delicate machinery we have also to take into account the fact that in each generation practically the whole of this machinery is scrapped and then built up again, let alone the fact that it is at all times being constantly repaired and renewed piecemeal. Are we to suppose that special machinery for effecting the reproduction is concentrated in the nucleus of the germ cell, and supplementary repairing machinery scattered all over the adult body? And what of the next generation? Where is the machinery for making its constructive machinery to come from? The so-called germ-plasm grows and subdivides continuously from generation to generation; but on the mechanical theory of life the germ-plasm is an inconceivably complex and delicately balanced piece of machinery. Are we to suppose that it reproduces itself by a process of fission of all its parts? Imagine the chaos which such a process would produce!

As soon as we picture to ourselves the implications of a mechanical theory of life we cannot avoid seeing the gross absurdity of such a theory. There is not the remotest possibility of its being true. Scientific men still continue to speak of the "mechanism" of heredity and of every vital process. The use of such a mode of expression would be to my mind nothing less than clear evidence of their incapacity for clear thinking if they ever considered, which, to do them justice, they never do, what the meaning of mechanism is. It is only the general ignorance which is reflected in so much of our present popular literature that shields them from the ridicule with which future generations will regard their language.

Perhaps it may seem that though we reject a mechanical theory of life we are still free to hold to the so-called "common sense" mechanistic interpretation of the surrounding physical universe. I wish to point out, as clearly and emphatically as I can, that this is not so. With the mechanistic conception of life the ultimate mechanistic interpretation of the surrounding universe must also go. We can only regard it as a working conception which is sufficient for various practical purposes, but in a deeper sense is quite insufficient. Living organisms are a part of the world of Nature. If we believe that Nature is intelligible, and that there is no such thing as a miracle, the existence of life as a natural phenomenon makes it certain that Nature is no mere mechanical system such as the sciences of physics and chemistry provisionally assume it to be. The fact that the variegated forms of life have developed gradually during unmeasurable ages serves only to clinch this argument by making it all the more certain that life is actually a natural phenomenon and no miracle. Those who have made for themselves a natural philosophy without taking life into account have made a very great mistake.

The inference that the physical and chemical interpretation of the universe is only a provisional working conception may at first sight appear like throwing doubt on the usefulness of these sciences. This would be absurd. Their usefulness is evident, and is established

on a very sure basis. All I mean to imply is that we cannot make their working hypotheses, useful as they are in many directions, the basis of a philosophical theory of the universe. It is true that to former generations it seemed to be only common-sense to do so; but the same generations accepted many other things which we can no longer accept. Mechanistic "realism" is not realism at all, but only a quite ideal interpretation of reality.

The next step in my argument is in some ways a more difficult one. We are not mere living organisms, but conscious individuals. I have pointed out what is implied in the fact of mere life; and I must now point out what is implied in the fact of conscious existence. As already mentioned, the response of a living organism to any stimulus is a response in which the whole life of the organism at any given moment is directly or indirectly concerned; and its responses are of such a nature that its life tends to be actively maintained or reproduced. But otherwise these responses appear to be only immediate responses to immediate stimuli. There is apparently no foresight or retrospection concerned in them. In other words they appear to be intellectually blind responses. Conscious responses are, however, very different.

When we perceive things we perceive at the same time their relations to past and impending events. That is to say, past and impending events are present in perceptions and inseparably bound up with them in an orderly manner, as Kant pointed out. At the same time we perceive them as part of what we are interested in—as related to a system of events which together form an actively maintained whole which constitutes our interests, and corresponds on the plane of conscious existence to the actively maintained whole which we call the life of a mere organism. This is an aspect of perception which Kant, in spite of his great contributions to philosophy, did not realise.

When we act consciously our actions are similarly related to past, anticipated, and other present actions, the actions corresponding to perceptions of interest and constituting, with them, a whole which is maintained and developed. The maintenance of what we perceive as of interest or value sums up the distinctive character of our conscious action, just as, on the lower plane of life, organic maintenance seems to sum up the character of physiological response. It is the fact that conscious existence overleaps separation, not merely in space, but also in time, which distinguishes it. We can look back into a fathomless past, or forward into a fathomless future, as well as out into fathomless space; consciousness and its interests have no bounds. To represent, as Hume did, a conscious experience as existing merely now has simply no meaning. To represent it as existing here and now within the nerve-cells of a brain is equally meaningless.

Let us now examine more closely the nature of interests. They are just the interests which we actually observe as soon as we consider them; and the corresponding values which we attach to the contents of our experience express these interests. As already pointed out, our interests are no mere individual interests, but include the interests of others. We are also interested in and value all the living and active beauty of Nature. We do not lose sight of our individual interests; but the latter, instead of clashing with wider interests, in reality form part of them. The man who sets before himself an ideal of mere individual interest has lost sight of his real interests, and can never be contented with such an ideal; but the man who does not endeavour to realise in his own individual life the ideals which he sets before himself for the lives of others has also lost sight of the maintenance of his real interests.

If it were the case that the maintenance of our interests depended on ourselves alone in face of an indifferent surrounding universe the task before us would be one of Sisyphus, and we should be in a miserable position. We are, however, in no such position. Just as we experience our interests, whether wider or narrower, we also experience the fact that our surrounding universe is with us in the realisation of these interests. We do not need to think of how we are to digest and assimilate our food or regulate our breathing or excretory processes, though if we know something of modern physiology we also know that all these processes must be regulated with the utmost exactitude and delicacy if disaster is to be avoided. Similarly we rely at every turn on others and on surrounding Nature in the realisation of our other interests, however wide. We find ourselves in fellowship with others and with Nature; we are not mere individuals in a foreign environment; our environment itself co-operates with us. Christian charity in our relation with others, and regard for

Nature, are the natural expression of this fact, which means that our universe is a spiritual universe, not a collection of mere individuals as such and material things, but one single and supreme spiritual Reality. This is the conception which seems to me to be the foundation of all religion, and particularly of Christianity.

I have already referred to the difference between this conception and that of the physical world. The physical world represents only a blurred and imperfect picture of reality, since it takes no account of the relations between either living organisms or conscious individuals and their environment. This imperfect picture is, however, very useful and necessary in view of our absence of detailed knowledge. The atoms and electrons of ordinary physics and chemistry seem simple things at first. It is only when we try in detail to realise how they react with one another, how they can form the basis of life, and how, finally, they are related to conscious existence, that we begin to see how far our simple picture must be from reality. Yet the simple picture is sufficient for many practical purposes, just as the simple picture of a solid foot and solid ground was sufficient for Dr. Johnson when he thought he had refuted idealism by stamping on the ground. For most practical purposes we do not even need to reflect that for modern physics a solid body contains almost nothing that is really solid in Dr. Johnson's sense, since even an atom is no more solid than the immense space included within the orbits of our planetary system.

The distinction between reality and the practically useful pictures of ordinary mechanical or chemical science corresponds, in the language of religion, to the distinction between faith and sight. There is nothing more simple than this distinction; for it only expresses the distinction between reality and superficial appearance. I wish now to make the distinction as clear as I can, and to free it at the same time from everything that savours of what is supernatural or irrational.

There is nothing more certain in our experience than the evidence of conscious life or personality, with all its interests and values. It belongs just as much to our universe as does the appearance of a surrounding world. No less certain is the fellowship or unity between different persons, and between them and Nature. The existence of interests and values is, however, as I have already pointed out, inconsistent with the mechanical conception of things existing separately in space, and events occurring separately in time. Hence that conception can correspond to nothing more than a mere appearance.

We originate from what we call natural conditions—from germ-cells, food-material, water, and air. Throughout all our lives we are also dependent on natural conditions, as are all the persons and things which we value. In interpreting these facts we have three alternatives before us; and I will examine them in succession.

The first alternative is to regard natural conditions as simply mechanical conditions, using the word "mechanical" in a wide sense, so as to include all that can be interpreted in terms of ordinary physics and chemistry. I have already pointed out the reasons for dismissing this interpretation without a moment's hesitation, and I shall not waste further words over it. We may leave it to the facile pens of popular writers whose thinking performances are almost negligible.

The second alternative is to regard all the conditions in our environment and that of the germ-cells from which we have developed as being mechanical conditions in the sense already referred to, but to assume that within the living body and living germ-cell an independent influence is at work which guides and controls the mechanical conditions. This, on its purely biological side, is the theory of vitalism, and on its psychical side the theory of a soul which is independent of the body. Roughly speaking, we may say that orthodox theological belief (though not simple Christian belief) has for generations corresponded with this conception, as has also the belief of the majority of men of science. Such men as Descartes, Boyle, and Newton, or Faraday, Kelvin, and Clark Maxwell, to come nearer to our own times, held substantially this belief, which frankly involves a breach, or rather innumerable breaches, in the intelligibility of the universe. We cannot form any intelligible conception of how a soul and a mechanical process interfere with one another.

The progress of biological, and particularly physiological, knowledge has rendered it progressively more difficult to adhere to such a view. On all sides it has become increasingly more evident that it is impossible to separate bodily from psychical activities and processes. They are inextricably bound up together. From

the ethical side there comes what to my mind is an equally strong objection. It is evident that all our passions and instincts, with all that really moves men and women, depend upon bodily conditions. If these passions and instincts are once admitted to be dependent on mechanical conditions the whole of human life is practically degraded to the lowest level. The hypothesis of a soul is then not worth preserving, and at any rate ceases to have any connection with that practical philanthropy which is of the essence of Christianity. Are we also to believe, if we still believe in God, that He created the world as a mechanical system, and then left it, with mankind in the midst of it, to go to ruin as all mechanical arrangements must ultimately go to ruin? Such a God is certainly not the God of Christianity. The old heathen gods, eccentric as they might be, were on a higher ethical level. A world of machinery would be spiritual asphyxiation.

I now come to the third alternative, which is that only on partial and superficial examination does the world seem to be mechanical: the real world—that world which faith reveals to us—is spiritual. This is the only conclusion I can come to; and to my mind it is the only possible rational conclusion. As life and personality form part of our universe, and as all we know of it is through conscious perception, it is quite impossible to draw any valid general conclusions about it without taking life and conscious perception into account. We might as well leave electro-magnetic phenomena out of account, though in this case the omission would hardly be as serious. I have already pointed out the profound modifications in our view of physical and chemical conceptions which become necessary when we take life into account. Mechanical interpretation is seen to be quite inadequate. But when we also take conscious perception into account a still more radical change in interpretation becomes unavoidable unless we are to admit that our world is inconsistent with itself, and therefore unintelligible.

The world as perceived is a world of actively maintained interests and values, in which as already pointed out, the past and future participate without limit, as well as the present. These interests and values are, moreover, no mere individual interests and values. We participate in them, but we also find that apart from our individual activities they are active in our world of perception and give abiding unity to it both in space and time. They are objective, and not merely subjective values. The perceived world acts in accordance with them. We trace them in history and in individual development from childhood. When we lose sight of them in early infancy or in early stages of history we have no right to say that they are no longer there; only that we cannot trace them except by faith, which is only another word for reason. How much is hidden from us in the real existence of an ovum or cell-nucleus or atom we can only infer from the behaviour of the developed organism and the atoms in it, and from our faith in the consistency of reality. The atoms in us participate in that unity of time and space which constitutes spiritual existence. If we knew all of what an atom is we should know all of what our spiritual universe is.

Our world can only be a spiritual world. It is also one spiritual world; for there is no meaning in assuming the existence of any other world outside of what we can perceive or infer. This conclusion is just the same as the religious conception that the world is the manifestation of one God in spite of all superficial appearances. We must, however, remove from our mind the idea that this implies anything miraculous or unintelligible. It only expresses the nature of reality itself, so that the religious conception of reality might properly be called a naturalistic conception, and leaves the fullest play to interpretation on what may be called naturalistic, though not mechanistic, lines.

In connection with medical study and practice we are constantly in contact with phenomena which show in the clearest manner what we call the dependence of mind upon body. We know that even the highest moral or spiritual characters are dependent on bodily function and on hereditary transmission through germ-cells. We also know that in helping the healing of the body we are helping the healing of the mind. Christian philanthropists also realise now, as in a former generation they failed to realise, that ills of the body are the key to ills of the soul. When we regard what we call the body and the physical environment as no less the expression of spiritual reality than what we call the mind the connection between body or external environment and mind no longer leads us towards a mechanistic or materialistic conception which degrades us in the scale of being. We can also still regard Nature as our poets and artists have regarded her, though for certain imme-

diately practical purposes we regard her from the unreal physical standpoint of an engineer.

The conception which I have tried to present to you of religious or general philosophical belief seems to me to be in accordance with all that is essential in the original teaching of Christianity, but is free from any element that implies a breach in the order of existence. In other words it is a strictly rational form of Christianity which I have been trying to expound, and a form in which no conflict arises between the general advance of knowledge and religious belief. Conflict does arise, however, and conflict in which there is no room for compromise, when a particular branch of science usurps for itself the position of a philosophy.

When he wrote the *Principia* Newton thought that he was describing reality itself, and not merely a practically useful method of regarding reality. He accordingly applied the word "philosophy" to the main principles he laid down; and the rest of the Western world, including the theologians, agreed with him in this. We are still steeped in the tradition of what was called the Newtonian philosophy, and the consequence has been the spread of materialism in one form or another. Existing orthodox theology seems to me to be full of it, and with the complimentary handicap of a variety of beliefs in miraculous events. I need hardly point out that the conception I have put before you is inconsistent with the so-called philosophy of Newton, however great were the advances which he made in physics. Neither physics, nor any other special branch of knowledge is philosophy. Philosophy, or religion, takes into account experience as a whole, and not merely, as physics does, a very limited aspect of it.

Newton was, of course, no materialist, but he was only saved from materialism by his unquestioning belief in miraculous events; and the theologians and others who have accepted his physical philosophy are in the same position. It is no wonder that so many who have found that the evidence for the miraculous events has come to appear quite unsatisfactory, and who also accept Newton's identification of the physical working conception of reality with reality itself, have become simple and straightforward materialists. To them materialism has come to seem the only honest form of belief.

I am not one of those who think that the waning influence of orthodox theology implies any real decay in practical religious belief. It seems to me that men are everywhere seeking for some mode of honest expression for the religious faith that is in them, but are to a constantly increasing extent repelled by present orthodox theology, as well as by the intellectual shortcomings, or sometimes the doubtful intellectual sincerity, of part of the clergy. These may seem hard things to say, but I feel that they ought to be said very plainly; and it is as a Christian whom orthodox theology has driven outside any existing Christian church, but who recognises clearly the supreme importance of what Christian churches stand for in calling us back from the appearances of sense to spiritual reality, that I say them. If Christian churches are to retain and increase their influence at home, and spread that influence over all the world, they must, it seems to me, remodel their theology on simpler Christian lines, casting out from it its materialism, with the complimentary beliefs in the miraculous, and laying more emphasis on essentials.

A mere discarding of the miraculous would be worse than useless. It would leave no religion at all. The very basis of religion is the fact that this universe is a spiritual universe; that God is in us all and everywhere around us, and is not a far-away shadowy being. This is the essence of the Gospel which Jesus proclaimed; and a church which did not teach and act upon that Gospel would soon disappear. It is not a gospel of rest and ease, but calls us to action in whatever position we may be; for it is only in action that we can realise our oneness with our fellow men and with Nature, and in so doing realise our oneness with God. It calls us to do our duty actively and confidently, but charitably; to realise that our neighbours are actually our neighbours, and to keep their interests always in mind; to see to our country's proper government and to fight in its just battles. It calls us also to trust to reason and the fullest investigation of everything, because it is itself a gospel of reason, and not based on any sort or kind of external authority or unreasoning belief.

Such is at any rate my own conception of Christianity; and because, though I belong to no Christian Church, I still count myself a Christian and believe that Christianity will yet conquer the world, I have accepted your invitation to speak to you as to a simple Christian Society.

Correspondence.

Thoracic Surgery.

DEAR Sir,—The value of the treatment of non-tubercular suppurative conditions of the lung by surgical methods is becoming increasingly evident as experience grows.

The Section of Thoracic Surgery at the Mayo Clinic is under Dr. C. A. Hedblom and the treatment of unilateral bronchiectasis is a good illustration of their work. The results of expectant treatment are universally admitted to be unsatisfactory. A large proportion of the patients die of pulmonary disease within a very few years, and, from follow up records here, a cure is obtained in only about one patient in five. Moreover, for the most part, these include the mildest cases of the disease.

Bilateral cases are unsuitable for surgical treatment it is therefore important that the location and extent of the disease is determined before starting treatment. In a series of over 400 cases the folfowing proportions were found:—

Limited to the left side ...	14 per cent.
Limited to the right side...	22 per cent.
Bilateral	28 per cent.
Doubtful	36 per cent.

Measures, other than expectant, available are:—

Artificial pneumothorax,
Drainage,
Ligature of the pulmonary artery,
Pneumonectomy, and
Graded extrapleural thoracoplasty.

When, through the absence of adhesions, artificial pneumothorax is easily performed, the results are at first good, but unfortunately they are temporary. No record is available of a patient who remained well more than two years. It has been found useful as a therapeutic test where it was doubtful whether the disease had involved the other side. The lung chiefly affected is collapsed and if a symptomatic cure is obtained, it is taken as evidence as to the unilateral distribution of the disease.

Drainage has yielded the smallest percentage of cures (6—7 per cent.) and one of the highest mortalities.

Pneumonectomy has a mortality well over 50 per cent., going up to 76 per cent. in one series of cases.

Ligature of the pulmonary artery has been found by Sauerbruch to be of value only when combined with thoracoplasty.

There remains graded extrapleural thoracoplasty. This operation has been found to give good or satisfactory results in over 66 per cent. of cases and no death has been recorded since its adoption at this clinic.

Three main principles govern the application of this operation:—

1. Too much must not be attempted at one sitting.
2. A sufficient number of ribs of the affected side must be ultimately removed so as to secure complete collapse before a satisfactory result can be obtained. This usually involves the removal of all the ribs, with the occasional exception of the first, from their angles to the costo-chondral junctions.
3. Pain must be as far as possible eliminated.

Usually there are five operations, but if the patient's condition is very bad this number can be greatly increased. Local anæsthesia alone or combined with gas analgesia is employed.

First Operation.—Subperiosteal removal of 10 c.m. of each of the lower five or six ribs from the angles forwards. Injection of the intercostal nerves exposed with 5 per cent. novocaine and 95 per cent. alcohol. The reduction of pain thus obtained is an important factor in keeping up the patient's morale.

Second Operation.—Same treatment of the upper ribs.

Third Operation.—Removal of the anterior 6—10 c.m. of the ribs through a parasternal incision.

Fourth Operation.—Removal of the remaining middle portions of the lower ribs through an incision along the line of the 8th rib.

Fifth Operation.—Removal of the remaining middle portions of the upper ribs through a tongue shaped incision round the lower end of the scapula.

A week is allowed to elapse between operations and the patient usually leaves hospital about two months after arrival. By limiting the amount done in this manner, shock is greatly reduced and the patient adapts himself to the altered intrathoracic conditions with a minimum of disturbance.

The deformity of the chest produced by these operations is surprisingly small and with the patient dressed it would be impossible to detect it. There is very little interference with the function of the arm, considerably less on the average than after radical amputation of the breast.

Usually as a result of this treatment any foul odour of the breath disappears, the amount of daily sputum is reduced to a minimum—from 1000 c.c. to 10 c.c. is a common figure—the cough goes, the appetite improves, evidence of toxic absorbtion such as night sweats and temperature vanishes and a large proportion of the patients are able to return to work.

B. L. LAVER.

Rochester,
Minnesota,
U.S.A.
March 1st, 1924.

DEAR Sir,—In my letter, dated the 1st March, 1924, I have made a misstatement which I should like to correct.

The incision for the fifth operation in a graded extrapleural thoracoplasty is a vertical one in the axilla. Through this, with the arm extended, the first rib can be reached and the lateral portion removed if considered necessary. In dealing with non-tubercular conditions, however, the first rib is usually left.

B. L. LAVER.

Rochester,
Minnesota,
U.S.A.
March 4th, 1924.

"Mark Rutherford."

DEAR Sir,—Mr. Augustine Birrell has written in the *Nation*, an appreciation of "Mark Rutherford" (W. Hale White), calling attention to the fact that the article in the "Dictionary of Universal Biography," on Benjamin Franklin was contributed by him. It is an interesting, lucid account of the great American.

Franklin had suffered two years from stone. In 1790, however, "he was attacked with fever and pain, in his breast, arising from an imposthume on his lungs," and died aged 85. Not being conversant with the word, I find it is a corruption of aposteme, from the Greek, apostema, meaning an abscess. The verb, apostemate, to form into an abscess, I suggest is deserving of a better fate than its neglect.

I need scarcely apologise for caressing the humanities in the pages of GUY'S HOSPITAL GAZETTE, and associating the father of a distinguished son.

RICHARD GILLBARD.

St. Margarets,
Dean Road,
Willesden Green, N.W.

Clubs' Union Rules.

DEAR Mr. Editor,—At a meeting of the Clubs' Union Council, held on March 13th, 1924, Rules 8 and 23 were amended as follows:—

RULE 8.—*Original Text*:—"The Treasurer shall prepare a yearly balance sheet of the accounts of the Union up to the 31st of March, which shall be duly audited and presented to the outgoing Council in the month of May in each year."

Amended Text:—The Treasurer shall prepare a yearly balance sheet of the accounts of the Union up to the 31st of August, which shall be duly audited and presented to the Council in the month of October in each year."

RULE 23.—*Original Text*:—"No alteration of, or addition to, these rules shall be valid unless it be confirmed at a subsequent meeting of the Council by a majority consisting of eight members. Of such proposed alteration or addition, the Secretary, at least fourteen days before the meeting of the Council at which it is to be confirmed, shall give notice in writing to the Secretary of each of the constituent Institutions, and shall post a notice in the rooms of the Students' Club, and shall cause a notice to be inserted in the "GUY'S HOSPITAL GAZETTE."

Amended Text:—As above, with the substitution of "six" for "eight."—I am, yours faithfully,

NEVILLE LLOYD,
Hon. Sec., Guy's Hospital Clubs' Union.

Medical School,
Guy's Hospital,
London Bridge, S.E.1.
March 21st, 1924.

Hospital Information, etc.

Landon Out-Patient Tea Fund.

STATEMENT OF RECEIPTS AND PAYMENTS.
For the Year Ended March 1st, 1924.

RECEIPTS.

	£	s.	d.
To Donations and Collections:—			
(as per List)	120	5	6
„ *Interest on Invested Funds:*—			
5% War Bonds ... 7 13 4			
Deposit Interest ... 0 9 11			
	8	3	3
	128	8	9
„ *Excess* of Payments over Receipts carried to Balance Sheet	77	15	4
	£206	4	1

PAYMENTS.

	£	s.	d.
By Cost of Tea, Groceries, Provisions, Fruit, etc.	22	2	9
„ Band	12	12	0
„ Gifts of Toys, Clothing, etc. ...	152	19	10
„ Police Fees, Gratuities, etc.	8	17	0
„ Printing, Stationery, Postages ...	6	1	10
„ Decorations, Flowers, etc.	3	10	8
	£206	4	1

BALANCE SHEET.
March 1st, 1924.

LIABILITIES.

	£	s.	d.
To Accumulated Funds:—			
Amount brought forward from last Account	255	17	9
Less—			
Excess of Payments over Receipts for year	77	15	4
	£178	2	5

ASSETS.

	£	s.	d
By Investments:—			
War Loan Bonds at cost	150	0	0
„ *Cash at Bankers:*—			
On Current Account	28	2	5
	£178	2	5

Audited and found correct,
W. J. CURRY,
Corporate Accountant, Auditor.
10th March, 1924.

BERTHA MARTIN,
Treasurer.
Landon Tea Fund Committee,
Salomons Centre,
S.E.1.

Guy's Hospital Maternity Samaritan Fund.

For the Provision of Food, Clothes, Coal, Medical Comforts and other necessaries for destitute mothers.

STATEMENT OF ACCOUNT.

For the Year Ended December 31st, 1923.

RECEIPTS.

1923.	£ s. d.	£ s. d.
Jan. 1—		
To Balance brought forward from last Account:—		
Cash at Bank	60 9 2	
Cash in Hand	1 9 2	
		61 18 4
Dec. 31—		
To Subscriptions and Donations:—		
As per List	45 7 7	
Chapel Fund Grants ...	14 9 3	
		59 16 10
		£121 15 2

PAYMENTS.

1923.	£ s. d.	£ s. d.
Dec. 31—		
By Food and Coal	0 5 6	
„ Coach's Expenses	0 15 3	
„ Nurses' Expenses	3 10 0	
„ Clothing	0 7 6	
„ Nurses' Requisites	0 17 11	
„ Travelling and Ambulances	1 9 6	
„ Printing, Stationery and Postage	0 9 7	
„ Domestic Sundries	2 5 6	
„ Xmas Dinners	9 5 0	
		19 5 9
„ *Balance carried forward:—*		
Cash at Bank	99 12 8	
Cash in Hand	2 16 9	
		102 9 5
		£121 15 2

Audited and found correct,
W. J. CURRY,
Corporate Accountant, Auditor.
February 9th, 1924.

Guy's Hospital Chapel.

Balance Sheet for 1923.

RECEIPTS.

1923.	£ s. d.
Jan. 1.—	
To Balance brought forward from 1922 Account	45 2 11
To General Account:—	
Chapel and General Wards (including special collections as per contra)	82 14 11
Bright Ward	22 7 8
Chapel Boxes	9 11 2
	£159 16 8

PAYMENTS.

1923.	£ s. d.
Dec. 31.—	
By General Account:—	
Flowers	16 9 11
Oil and Breads	4 19 2
Printing, Stationery and Postage	11 2 1
Furnishing and Equipment ...	5 1 5
Travelling and Incidental Expenses	11 2 11
By Special Collections:—	
Guy's Hospital Maternity Samaritan Fund	14 9 3
Universities Mission to Central Africa	4 18 7
Japanese Earthquake Relief Fund	4 15 8
Earl Haig's Fund	4 0 0
Metropolitan Hospital Sunday Fund	1 16 0
Society of the Sacred Mission ...	1 3 10
Oxford Mission to Calcutta... ...	1 3 2
By Balance carried forward:—	
Cash at Bankers	78 14 8
	£159 16 8

Audited and found correct,
W. J. CURRY,
Corporate Accountant.
February 13th, 1924.

Pass List.

L.D.S.

Final Examination.

February, 1924.

Part I.

A. S. Daniels.	P. Droomer.
F. G. Davies.	G. G. Exner.
R. M. Hastings.	W. H. Foy.
E. H. Marshall.	G. W. Goodson.
J. R. A. Moore.	E. M. Harries.
J. G. Nelson.	M. C. Hart.
V. W. Percival.	A. F. King.
J. F. S. Reynolds.	A. D. Miller.
L. P. Tupling.	N. Parkinson.
E. A. J. Van Noorden.	A. Perkins.
H. P. R. Williams.	H. M. Pimm.
E. J. B. Curtis.	L. Weinberg.
R. S. de Bruyn.	O. P. James.

Part II.

A. S. Daniels.	G. L. Gould.
R. M. Hastings.	A. Hirschberg.
J. R. A. Moore.	A. R. Jackson.
V. W. Percival.	L. S. J. Kanaar.
F. G. Davies.	S. A. Pleasant.
J. F. S. Reynolds.	F. R. Taylor.
L. P. Tupling.	O. P. James.
E. A. J. Van Noorden.	C. E. Bowen.
A. R. H. Bennett.	D. S. Hammond-Williams
W. E. Berwick.	A. L. Hodgkinson.
F. F. Brayfield.	R. G. Pengelly.
W. E. Bingham.	G. T. Thompson.
L. M. Cartwright.	A. E. Tidd.
H. M. Doubleday.	J. B. H. Tunstall.
V. R. Estment.	

Guy's Hospital Christian Union.

ON March 7th, this Society had the extremely interesting privilege of hearing the religious views of such a distinguished scientist as Professor Haldane.

In a paper entitled "Religion and the growth of knowledge" (which is published in this number) Dr. Haldane spoke of the need for religion as a guide to a man's life, and of the rationality of Christianity as a good philosophy both in theory and in practice. Though not believing in the supernatural, but rather in the wonders of the natural, he pictured to us a spiritual universe, which was an essential part of God, but he was unable to find room in his philosophy for a soul or a future life. He went on to show how the wonders of life, conscious perception, and fellowship among men, could not be accounted for by a mechanistic theory of life without debasing these things and making the world seem inconsistent. If we knew all about the atom, he said, we should know all about our spiritual life; the world we know is a manifestation of life. The Christian Church must go back to essentials, and call men, as Jesus did, to action, duty and thoughtfulness for others, but not with unreasoning authority or by blind belief.

Considerable discussion followed; Dr. Pembrey supported Dr. Haldane, and vigorously attacked the Church, which was ably defended by the Chaplain, who was supported by many members. The general feeling was that Dr. Haldane's paper, while making a valuable contribution to the intellectual aspect of religion, failed to embrace the whole truth, and did not offer a complete interpretation of the Christian message.

C. W. M.

Guy's Hospital Charity Matinee.

A MATINEE, in aid of Guy's Hospital, was given at the Aldwych Theatre on Monday, the 10th of March. The programme was of a mixed order. Mr. Charles Gallagher, M. Jacont, Mr. J. M. Sign'y, Miss Hilda Ammo, Miss Phillis Novinsky, the Misses Betty and Olive Bowen, Miss Alexander, sang or played. Miss Anne Winston and Miss Vera White rendered monologues and dramatic recitations.

A sketch, entitled "Afterwards," by J. M. Sign'y, was performed—the parts being taken by the author and Miss Vera White—it was rather too short, lasting in all about five minutes, but had a rather unusual theme. The artistes it seemed, laboured under a difficulty—the audience was particularly unenthusiastic—and the absence of several of the performers owing to illness, seemed to have a depressing effect on the players.

Taking it as a whole, the matinee was a distinct success as an entertainment, and we hope the financial side of the matinee will be equally encouraging.

Election.

WE feel sure that all Guy's men will afford whole-hearted support to Mr. Philip Turner's candidature at the forthcoming election to the Council of the Royal College of Surgeons. Mr. Turner's work in surgery, and his surgical writings are well-known, and his qualities as a Committee-man are just such as are needed. The election takes place in July, but voting papers are sent out to Fellows on April 1st, and as votes are usually sent in at once it is important that canvassing work should take place early. If all Guy's men will help, either by voting for Mr. Turner, if they are Fellows, or by inducing Fellows of their acquaintance to vote for him if they are not, the result should be placed beyond doubt.

Guy's Hospital Annual Dance.

THE Annual Dance will be held at Prince's Galleries, Piccadilly, W., on Thursday, 1st May. Dancing, 9.30 p.m. to 2.30 a.m. Vassie's Band has been engaged. Tickets 17s. 6d. (single), 35s. (double), including Buffet and Supper, may be obtained from Messrs. G. D. Shaw, D. B. Whitlock, E. Wornum, S. P. Meacock and R. Jarman.

D. J. P. O'MEARA,
JOHN SIMONS,
Joint Hon. Secs.

Change of Address.

L. B. Helder, L.D.S., 58, Vanbrugh Park, Blackheath, S.E.3. ('Phone: Greenwich 1194).

A. Ll. Spencer-Payne, 19, Harley Street, W.1. ('Phone: Mayfair 5131.)

Leslie Lyne, Fir Cottage, Ascot, Berks.

Augustus John Reynolds, L.D.S., Woodslea, Bexley, Kent.

A. W. Hall, Gloucester Royal Infirmary and Eye Institute, Gloucester.

Capt. G. D. Gripper, R.A.M.C., c/o Messrs. Glyn, Mills, Currie, Holt & Co., 3, Whitehall Place, London, S.W.

Frank Cook, 152, Harley Street, W.1. ('Phone: Mayfair 7077); and 14, St. Thomas's Street, S.E.1. ('Phone: Hop 5318).

Sport.

Association.

Guy's Hospital v. Bart.'s.

Inter-Hospital Cup Final.

IT must have been quite refreshing to the Guy's men to hear so many supporters urging them on to victory in the final of the Inter-Hospital Cup at the Crystal Palace on Tuesday, March 11th, against Bart.'s.

Guy's fully deserved their victory of 3—1, and had not Williams and Walters remained cripples throughout the second half the score would most probably have been increased.

Couch scored the first goal after about 20 minutes' play, from a pass by Williams.

The Bart.'s left wing was inclined to be clever and dangerous, but Gray, by his splendid tackling, was able to keep them fairly subdued.

The second goal was the result of a solo run by Pickett, who practically walked the ball into the net.

Soon after this Williams was hurt in a collision with a Bart.'s back, and had to be carried off.

Guy's continued to have most of the game until near the interval when a heavy fall deprived them of the services of Walters, who had been playing rather well.

With only nine fit men during the second half Guy's played exceedingly well, and were constantly on the attack. The work of the defence was magnificent, and much praise is due to Gray, Hancock and Wakeford.

Guy's went further ahead. Couch getting clean through to register the third goal.

Bart.'s now pressed hard, and Savage obtained Bart.'s only goal with a splendid high shot. A moment later another good shot from the same player went over the bar.

Guy's combined well and played an excellent all-round game. The inside men worked tremendously hard.

Guy's Team.—F. Channon, B. A. Wakeford, R. Hancock, J. Gray, E. Boyd, W. Ruzzak, L. Walters, L. Pickett, L. Williams, D. A. Couch, J. Neely.

Boxing.

Inter-Hospital Competitions.

FOR such a very junior student I am a very proud man. It is only such a very few days since I slipped into the wards, having deceived my examiners, goodness knows how, and yet already I find myself writing that most difficult of reports, the report of the Inter-Hospital Boxing Competition. When I was asked to do this, after everyone else had refused, I confessed in the most manly and laudable manner, that my only knowledge of boxing was derived from occasional visits to "Big Fight" pictures at the local Cinema and from holding the arms of patients during the induction of anæsthesia. Further I pointed out that I was at the moment entirely wrapped up in the clerical duties of my "firm," which occupied all my thoughts. After this full admission I hastily accepted the post of ward clerk to the Pug firm, for I did not wish to argue with them without previously arranging for a suitable donor to be on hand for an emergency transfusion.

The National Sporting Club, like a hearse, is almost entirely surrounded by flowers and I felt icy fingers play up and down my spine as I descended the area steps, realising that hopes might not be the only things left dead on that eighteenth of March. Inside I soon recovered my spirits, for an air of happy expectancy filled the place. Around the ring, which was quite square, were seated rows and rows of gentlemen in evening dress, while here and there were ladies in afternoon dresses. Though I tried ever so hard, I could not think why they had come. The competition seemed much more suited to the patrons in the gallery, who wore caps and enjoyed it very much.

I am not going to tell you everything that happened, because all boxing seems to me to be the same, and only becomes interesting when one of the boxers is a personal friend. This must have been the feeling of the holiday crowd in Rome, as they watched the Imperial lions eating Christians. The sameness of this spectacle for them would only have been alleviated by the sudden recognition of a personal friend, or even a piece of a personal friend, among the débris.

The first thing of interest to catch my attention, was the appearance on the stage of an elocutionist with a plus-four stance, who announced that we were now to be entertained by "Thornton of Georges and Mine of Goys," each weighing nine stone, nine pounds exactly. I promptly joined heart and soul with the Goy-mine, arguing rather cutely that one unfortunate Georgian could hardly expect to emerge victorious from an encounter with a battery of Goys —probably some kind of dangerous firework. The mine, however, turned out to be no other than F. G. Mayne, already famous as a master of fence, and, despite his superior technique, he was distinctly countermined by Thornton and we lost our first battle on points.

The next battle of importance was in the feather weights, Haddon of Guy's defeating Kendrick of Thomas' in no uncertain manner. From the start of the first round, these two willing fighters upheld the honour of their weight and made the feathers fly. Each registering something between two and three hundred blows, the first round was anybody's fight. (That is a technical expression and should not be taken literally, for I had already come to the decision that nothing should make it mine, if I could help it). In the second round, Haddon became master of the situation, drawing blood from Kendrick and applause from the gallery, and in the third round, Mr. J. W. H. T. Douglas said, "That will do, thank you," and the fighters said, "No, no, thank you," and left the stage. This was our first victory.

The welter weights next appeared, with H. E. Terry on our side fighting H. L. Simpson of London. This was a very close battle. Alf Hewitt did all he could to bring victory to our corner; he made faces at the enemy, waved him closer so that Terry could reach him, made all kinds of war-like gestures and occasionally hit the corner post to show what he would do if they'd let him join in. Alas, for all his trying, the referee gave his verdict in favour of Simpson and we all had a ripping time booing away like seasoned boxing fans.

Holloway now made the first of his dramatic appearances in the heavy weights, with G. Milne of London in the opposite corner. The respective measurements of these combatants were not mentioned in the programme, but there was probably less disparity in size between David and Goliath than between Holloway and Milne. Holloway's girth-strap would have made garters for Milne with difficulty. How many stone he gave away to his great big opponent I shall never know, but he gave so many hard knocks as well that a nervous patron behind me expressed the gravest concern lest Milne should burst. I suggest that he nearly did, but only with pride, for, although many years Holloway's senior, he put up a magnificent fight and more than earned the shouts of applause that greeted him after losing so game a battle.

Spence now appeared in the ring with Lavin, the London light-heavy weight. The opening phases were slow and stately and gave me time to appreciate Lavin's lavender socks. This was the first cheerful colour effect that had been introduced and probably accounted for Spence's anxiety for a closer view, which he got in the second round. On re-

gaining his feet he did not appear to be properly orientated, but managed to keep up until the bell sounded. The third round was as good an exhibition of how to take a hiding as was seen that evening. Spence staggered about the arena and took what Lavin thought was good for him; and whenever he saw Lavin's head sway into his field of vision, he hit it hard with both hands and must have shaken it up severely. When he has learned to box, Spence will send Lavin down to look at his half-hose and Guy's will win the light heavies.

Just here we had a very startling fight, Brink of London meeting Trafford in the final of the "middles." The previous history of these patients was that Brink had defeated the Bart.'s middle weight in just under half-a-minute, knocking him and four of his teeth out at the same time. Trafford's previous history was that he had seen this done. (I pause to mention that the patronesses also saw it done, as Stevens almost fell through the ropes at their feet. "My dear, isn't it just too sweet.") Who was the better boxer in the final will always remain in doubt. Brink rushed at Trafford, gave him the most beautifully-timed right to the jaw, and, as his arms dropped and his head sagged forward, went off like a steam-hammer run wild and reduced him to a crumpled mass of Trafford.

The feather weight final found Haddon once more in the ring, rather blood-stained, but looking quite fresh. Simmons of Middlesex, who had previously beaten Sperber of the London Hospital, was his opponent and was rather too good for Haddon, who was not in the best of condition. Simmons, incidentally, was one of the nicest boxers to watch in the Competition.

The last fight of the evening, of interest to Guy's supporters, was the final of the heavy weights, in which Holloway was beaten on points by Matthews of Middlesex Hospital. There were many present, who would have awarded the fight to Holloway and certainly it was so even that it made a decision a very difficult matter. Each round was filled with the best type of long-distance boxing; each blow was delivered with the best of intentions; and though the verdict was given against Holloway, he had certainly had as much of the fight as his opponent.

I did a good deal of "in-fighting" on the way out, while recovering my hat and coat from the attendant, and received at least one punishing right from a member of our own Staff, but eventually I found myself outside and acquiescing to a taxi-driver's "Africa, Sir?" found myself on the way back to the land of my adoption, reviewing the result, which was:—

1. Bart.'s, 14 points.
2. Middlesex, 12 points.
   London, 12 points.
4. Guy's, 6 points.
5. George's, 4 points.

Fencing.

ON March 21st, the Hospital Fencing team were the guests of the Imperial College Fencing Club and, being for the first time with their strongest team, turned back the sleeve-frills of their doublets with confident hands. The encounters with the foils justified this confidence, for they showed themselves the masters of their opponents, whom each moment they presented with ampler targets by the proud swelling of their breasts.

In the second competition, with the epées, these bosoms underwent a steady diminution, the boiling vortex of pride escaping from fifteen desperate wounds.

With the events at one all, the sabres were fought with a furious abandon, some of the broken guards almost causing broken arms. But with all their fine fervour the team could not withstand the accomplished onslaught of the enemy and left the field defeated, but not disgraced.

The heroic deeds of our swordsmen were:—

Foil.—
C. P. Blacker, 4 victories, no defeats.
L. G. Housden, 4 victories, no defeats.
W. H. Foy, 2 victories, 2 defeats.
C. H. Johnson, 4 defeats.
Guy's, 10 victories; I. C., 6 victories.

Epée.—
L. G. Housden, 1 victory, 3 defeats.
W. H. Foy, 4 defeats.
C. H. Johnson, 4 defeats.
T. Silvester, 4 defeats.
I. C., 15 victories; Guy's, 1 victory.

Sabre.—
L. G. Housden, 2 victories, 2 defeats.
C. H. Johnson, 2 victories, 2 defeats.
T. Silvester, 2 victories, 2 defeats.
W. H. Foy, 4 defeats.
I. C., 10 victories; Guy's, 6 victories.

Junior Inter-Hospital Hockey.

2nd Round.

THIS match, which was against University College Hospital, was played at Perivale on Tuesday, March 11th, and resulted in a win for Guy's by 9 goals to 1.

The game took place under perfect conditions of weather, though the ground was exceptionally soft and by half-time was cut up to such an extent that all accurate play was impossible. In the first half, U.C.H., playing ten men, were kept almost entirely in their own ground and within a few minutes of starting Catchpole had opened the score with a fine shot at close range; following this the whole forward line kept up a succession of shots at the goal, many of which were parried most efficiently by the opposing goal-keeper. By the time the whistle blew for the interval the score stood at 5—0 in our favour, the goals having been taken by Catchpole (2), Cautley (2), Duchesne (1).

Only once in the first part of the game did our opponents succeed in seriously menacing our defence, but after the play was resumed, now with a full side, they became more pressing and several times reached the goal mouth; on the last occasion, about ten minutes before time, they scored against us after a tussle in the mud.

Before the whistle proclaimed time we had raised our lead to 9—1, due to the previous scorers, Cautley (3) and Duchesne (1), although as before the U.C.H. goalie made many excellent saves and many of our shots went wide, owing to the roughness of the ground. On the whole the game was a very enjoyable one and Guy's has now qualified for the Semi-Final.

Guy's Team.—Dunnill, Kingsbury, Coneybeare, Pidgeon, Spurrell, Howitt, Gillett, Catchpole, Cautley, Duchesne.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *April 12th, 1924.* *Number 933*

PASSIM

THERE is no need on our part to remind readers of the GAZETTE that a Committee was appointed last year to consider the question of a memorial to the late Dr. A. H. Fison, who was for many years lecturer in physics to the Medical School. It was decided to raise the sum of £500 for the endowment of a Fison Memorial Lecture, to be delivered annually by an eminent scientist or philosopher. At the present time a further sum of only £20 is needed to complete the above amount. There must be hundreds of Guy's men, past and present, who would still be willing to take some share in the endowment of the memorial, and we sincerely trust that within a few days the fund will be completed. All subscriptions, of any amount will be gratefully received and should be forwarded to Prof. T. B. Johnston, Guy's Hospital Medical School Office, London Bridge, S.E.1. We hope to publish a full list of subscribers as soon as the fund is completed.

IT will be remembered that shortly before his death Dr. Fison collected from students and members of the Staff a sum of money for the purpose of installing a wireless receiving set which he hoped to use for demonstration purposes. It was during the erection of the aerial that Dr. Fison met with his fatal accident, and all idea of proceeding with the experiment was then dropped. The apparatus is still in existence, and we hear that in the near future it may be possible to hold a demonstration. Further particulars will be given in the GAZETTE as soon as anything definite is arranged.

GREAT improvements have recently been made in the Wills Library by the addition of a suitable stand for periodicals and an increase in the number of book-rests. In spite of these, however, there is, during the school term, a most uncomfortable congestion in the Library, and it is often impossible to obtain a seat at any of the tables. We hope the Library Committee may be able to alleviate this to some extent, and suggest that it would be possible to do so by the addition of two more tables. This would, no doubt, interfere slightly with the passage-way at the lower end of the Library, but we feel sure that additional tables are necessary and would be welcomed by all.

Should such an idea be impracticable it would still be possible to set aside one of the class rooms as a silence room. These rooms are now used by many who can not obtain accommodation in the Library, but at the present time silence is not necessarily enjoined in any of them, and it often happens that thoughtless talking on the part of one or two will drive from a room many who are in search of silence.

THIS issue contains the report of the last Rugby match of the season, together with a resumé of the past year's activities. In this

connection it is interesting to record a statement which was related to us by Dr. C. I. Kirton who played for the London Hospital in the season 1884—85. Up to that season no Hospital had, since the inauguration of the Hospital Cup Ties, won the Cup for two consecutive years. In 1884 London won the Cup and next year reached the final in which they played Guy's. They were naturally desirous of winning the Cup once more and of thus constituting what was at that time a record.

The Guy's three-quarter line was an exceptional one, and to equalise matters, and particulary to keep an eye on H. M. Jordan, a Welsh International, the London instituted in this match the four three-quarter game, and incidentally won the Cup. It was in this match then that the four three-quarter game was first introduced into Rugby Football. The advantages of the new formation were quickly realised and owing to the number of Welsh players at the Hospital during that season it was soon adopted by the Welsh clubs, some of whom have lately claimed to be its originators.

The Guy's Rugby Club, although they were not the originators, can at least claim to have been the exciting cause which led to the adoption of the four three-quarter game. The Hospital team for that year consisted of :—A. S. Taylor, back; H. M. Jordan, J. D. Cruikshank, and H. Cuff, three-quarter backs; F. M. Russell and A. Meyrick-Jones, half-backs; S. Wacher, C. D. Rygate, F. Beard, R. M. Peile, H. B. Marriott, C. Metzgar, A. D. Fripp, E. S. Blaker, and F. F. Burghard, forwards.

An attempt is being made to compile a series of "Hospital Cup Records," and we should be grateful if any of our readers could supply us with the results and detailed scores of any of the following Final Cup Ties : — 1876, St. George's v. University; 1878, St. Thomas's v. University; 1879, Guy's v. Bart.'s; 1880, St. George's v. Bart.'s; 1889, St. Thomas's v. Bart.'s.

Obituary.

R. G. POOLE LANSDOWN.

THE death of Mr. R. G. Poole Lansdown removes a member of one of the old medical families of Bristol. Both his father and his grandfather practised medicine in this City, and were, as he was himself, Surgeons to the Bristol General Hospital.

On the completion of his school education at Clifton and Epsom he took the preliminary scientific course at University College, Bristol. He enrolled as a student at Guy's in October, 1883. After pursuing the ordinary courses at Guy's and acting as Dresser to Mr. Howes he spent a period in the Medical School of the University of Durham, where he obtained the degrees of M.B., B.S. in 1889 and the degree of M.D. in 1891.

After holding the appointments of Clinical Assistant, Assistant House Surgeon, House Surgeon and Resident Obstetric at Guy's, he joined his father in practice in Bristol in 1891. Shortly after taking up practice in Bristol he was appointed to succeed his father as Surgeon to the Post Office. He also succeeded his father as Surgeon Captain in the 1st Glos. R.G.A. Volunteers in which capacity he proved himself a thoroughly efficient Military Medical Officer, and knowledge then acquired stood him in good stead when he was called upon to join the Staff of the 2nd Southern General Hospital of Bristol in 1914 when he held the rank of Major. He held a Resident Officer's post for a time at the Bristol General Hospital, and was appointed Assistant Surgeon to that Institution in 1893.

He very quickly showed a special aptitude for surgery, and in about 1903 he restricted his work to that branch of the profession, in which he became in a very short time a well-known consultant.

He held several posts in University College (afterwards the University) of Bristol; and at the time of his retirement in July, 1923, held the post of Lecturer and Clinical Lecturer in Surgery and Clinical Dean at the Bristol General Hospital.

He was one of the pioneers in the technique of aseptic operative work in Bristol, which he carried on in face of the difficulties which fall to the lot of most pioneers. His methods were at one time described as "fads," but after

much criticism he succeeded in converting his colleagues by the practical demonstration of the results of his methods.

His work as a surgeon was characterised by great attention to detail, sound commonsense, unflurried coolness in emergency, and by the artistic completeness of everything he did.

In private life he was one of the best and most loyal of friends; he was a strong upholder of opinions which he considered to be right, but was always amenable to reasoned argument. He had in a very high degree the capacity for managing others, which was clearly displayed in the office of Chairman of various bodies, a position which not infrequently called for the exercise of considerable tact and firmness.

In 1893 he married Miss Alice Anna Griffiths (who had previously held the position of Head Nurse in Job Ward (Guy's), and who survives him.

He was a keen amateur photographer, a good swimmer (holding a medal for life saving from the Royal Humane Society), and a keen motorist. He had considerable musical ability, and in spite of his many activities was for many years a member of the choir of one of the Clifton Churches. He could tell a good story, especially in dialect, of which he had a wide command. He leaves one daughter, and one son, who is well known to many Guy's men, as he followed in the steps of his father and his grandfather at that hospital.

Mr. Lansdown's death leaves a great gap in the ranks of the profession, as well as in the social life of his many friends in Bristol.

Reviews.

Aids to Physiology. By JOHN TAIT, M.D., D.Sc., and R. A. KRAUSE, M.D., D.Sc. Foolscap 8vo. 355 + viii. pages. Published by Baillière, Tindall and Cox. *Price 3s. 6d. net.*

TO those in agony of an approaching examination this pocket edition is to be commended. Any troublesome points of doubt, such as have the trick of beseiging the student in the last hours before inquisition, can be rapidly and authentically verified or corrected. Two inclusions in this Second Edition, —"The Chemical Regulation of Respiration," and "The Sympathetic Nervous System,"—should be especially noticed, although many further alterations have been made where the advances of Physiology have demanded them. The letterpress is very readable, and numerous headings in heavy type make reference easy.

Baillières Popular Atlas of the Anatomy and Physiology of the Male Human Body. 17in by 9 in.

THIS tall, flat atlas Charles Lamb would have included among his "biblia abiblia,"—books that are no books. It has been compiled for those "who have not the time or opportunity to work in dissecting-rooms and laboratories." For such people we cannot plainly conceive how this atlas will help, although we heartily join with the expositor in his prayer in the introduction that: "May it be some assistance!" We fear it must keep company with its dusty fellows in Charing Cross Road.

Tibirium Dremens

(With no apologies whatsoever to John Masefield).

I must go down to Queen's Square again,
  That lonely Square and grey;
And all I ask is a fountain pen
  And some questions *printed* pray.
And the clock's tick, and the pens scratch,
  And the flutter of sheets of paper,
And that hopeless feel that we're down again
  To the heel of our guttering taper.

I must go down to Queen's Square again,
  Or so the porter says;
"Sorry, failed," and a pink form,
  And another six guineas you pays.
The defiant group and the swing doors,
  And the street windy, drear;
And a frozen lump in your stomach,
  And a pulse no drink can stir.
I must go down to Queen's Square again
  And try my luck once more.

. . . . . .

And all I ask is a clean lined hat,
  And a blind man to draw.

KIBBERENGÉ.

Guy's Hospital Medical School.

A Lecture will be given in the Medical School, by Dr. Rollier, of Leysin, on "Heliotherapy." Further details will be given at a later date.

GEOFFREY MARSHALL.
Sub-Dean.

On the Changes due to Age found in and around the Eyes.

Clinical Lecture by ARTHUR W. ORMOND.

GENTLEMEN,—I have chosen as a subject for my Clinical Lecture to-day the changes due to "age" found in and around the eyes. By age I mean senescence or healthy old age as distinct from senility, i.e., age complicated by some morbid process. Healthy old age should be a normal process of involution with progressive atrophy and loss of vitality, but free from any morbid change.

It has been said that we paint our own portraits, but the artist by means of a few strokes of his brush, a deepening of a line, an emphasis of a shadow, can and does convey to the beholder a subtle information as to our age. Mr. Bernard Shaw suggests that we might rival Methusaleh if we only had the will to live and did not allow the suggestion of age to enter into our minds so facilely; that we surrender the fortress of our bodies at the first summons of loss of accustomed vigour or capacity and resign ourselves to death on the stroke of three score years and ten. It may interest you to know that claims to longevity exceeding a century and a half have been made, and Sir Humphrey Rolleston in his very fascinating lecture on some "Medical Aspects of Old Age" records the case of Henry Jenkins reputed to have lived 169 years, Thomas Parr 152 years, Katherine, Countess of Desmond, 140 years, Petratsch Zortau 187 years, and John Rovin and Sarah, his wife, 172 and 164 years, respectively, but of none of these are the birth certificates forthcoming!

Ageing is a natural process, a defect of life's qualities, a limitation of its colloidal medium, and seems to rely for its manifestation on the changes in the cell walls rather than an alteration of the living matter within those walls; the latter can be renewed, but the former is more stable and is not liable to live again so easily, not being so easily reproduced.

The atrophy of our organs is due to a lessening of the proliferative capacity of the individual cells, and is well shown in lymphatic glands and adenoid tissues generally. The lachrymal gland shows marked diminution in its power of secretion. Tears do not as readily well up in the eyes of age as in those of youth and the watery eye of age is due to other and more mechanical conditions. In the lowest forms of life there is an absence of senescence because uni-cellular organisms assume an immortality by a rejuvenescence due to a simple form of continuous reproduction, but in the higher animals this rejuvenescence does not accompany reproduction and the vitality of the constituent cells diminishes until eventually atrophy and death supervene.

Bechhold has shown that like a simple colloidal jelly the cells of the human body, which are colloidal masses, lose with age their affinity for water and become less elastic. It is probable, however, that the ageing of cells in living organisms is determined by extrinsic factors in the plasma which cause an increase of the connective tissue portion of the cell and an atrophy of the functional part. The organs of the body may all start to grow old together, but some show demonstrable signs of the process earlier than others and amongst these may be mentioned the crystalline lens.

The lens is an epiblastic structure, an offspring of the outer germinal layer, an epithelial formation which differs from other epithelial structures in that it cannot shed its old dead cells as does the skin. Owing to the fact that it grows by the deposition of new young cells on its outer surface, the central cells become its oldest and most compressed ones, and since they were laid down before birth they show early those changes associated with age, namely, progressive atrophy and loss of vitality; the centre of the lens is in fact so removed from the influence of the osmotic process by which the lens receives its nourishment that it can hardly be considered to be living tissue at all.

The lens then undergoes a process of hardening and dehydration which produces an alteration of its index of refraction. Such changes result in the ciliary muscle being no longer able to effect a sufficient alteration in its curvature so as to enable our eyes to focus for reading, and recourse must be had to mechanical aids to enable us to re-inforce this failure of the muscle.

Presbyopia, as the condition is called, is one, in which the "near" point of distinct vision (the punctum proximum) has receded sufficiently far from the eye to be inconvenient,

and clinically we consider the advent of that condition, in a normally sighted individual, as occurring about the age of 40. At 45, if we are doing clerical work of any sort we require glasses to assist us. The eyesight of all can be improved by wearing glasses at sometime during life, for the emmetrope (normally sighted) and the hypermetrope (long sighted) will not be able to read comfortably without glasses after 45, and the distant vision of myopes (short sighted) can always be improved by concave lenses.

These clinical facts are summarised by a general statement which is as true as most generalisations usually are; that for reading and "near" work we require a convex sphere of plus one, added to our distance lenses for every five years after the age of 40. When an addition of plus four is reached we have a lens with a focal length of ten inches, which will not require any further increase, as that is a sufficiently comfortable distance to enable reading, etc., to be carried on easily.

Another change which takes place as the result of a physiological process is the gradual diminution of the size of the pupil; this is due to a want of elasticity in the tissues forming the iris and to the radiating iritic vessels becoming stiffer and more rigid with age. Its occurrence has led to a very popular belief that short-sighted people become less short-sighted as they grow old. In so far as the short sight is due to an axial myopia this is not true, as we cannot imagine any diminution in the length of the eye from back to front as a result of a physiological process, but, that short-sighted people suffering from a mild degree of short sight do see better as they grow old is true; one reason being that the short-sighted individual has less chance of manifesting the symptoms of presbyopia; he can see to read and write in virtue of his far point of distinct vision (i.e., punctum remotum), and so is not dependent on glasses for "near" as is the long-sighted. The benefit of a small pupil is due to the cutting off of the peripheral rays entering the eye, especially those rays that are out of focus, in the same way as a photographer wishing to increase the definition of his picture employs a small "stop" when taking his photograph in a bright light. We do find that a number of moderately short-sighted people notice that in the fifth and sixth decade of life their sight appears to them to have improved for distant vision, and they naturally claim a superiority over their fellows who have recourse to glasses for reading, which they themselves find they can do without.

Senile Macula Disease.—The macular lutea represents that part of the retina which is most sensitive in appreciating form and our capacity for reading small print easily and comfortably depends upon its integrity. It is nourished through the central retinal artery which has a terminal end circulation, that is to say the vessels end in that region and are not assisted by any definite collateral circulation; the macula then is nourished by lymph only and a failure of the permeability of the surrounding capillaries to blood circulation is liable to cut off the macular from its nutritional source; further, the nerve cells themselves are some of the most delicate and highly specialised ones in the body; what wonder then that arterio-sclerotic changes which are such a constant accompaniment of old age, together with the physiological atrophy of the cellular elements, leads to a diminution in the retinal perception resulting from deficiencies in the macular region of the retina.

A failure of central vision in an old person may be pathological in the sense that it may be due to choroiditis or choroidal atrophy, but this failure is a result of the vascular changes which accompany old age, and is primarily due to an atrophy of the cells forming the walls of the terminal blood vessels thus allowing small hæmorrhages to occur with subsequent occlusion of the vascular channel. The atrophy of the macular retinal cells is also often associated with slight mental failure, loss of memory, power of concentration, and co-ordination, etc., and it is not surprising that the association should exist since the retina is, of course, to be considered as part of the brain.

The visual acuity once it is fully developed remains, as a rule, unaltered up to the age of 25 years; it then slowly and regularly diminishes. Later in life it may be reduced to as much as 6/12 without any evidence of pathological cause.

With the advance of age a decrease in the transparency of the cornea, lens and vitreous may be shown by the presence of the arcus senilis, the increased reflection from the lens on focal illumination, and the coloration of its substance. In a series of 1,000 persons Sattler found that the V.A. being 6.1 at 40 was 5.98 at 60, 5.21 at 70, and 4.15 at 80, but excep-

tions were not infrequent. Sometimes definite ophthalmoscopic changes occur in the macular region of the old, which brings us to the controversial point as to what is due to senescence and what is due to senility. It is not easy to limit the changes brought about by normal physiological processes so as to exclude a possible pathological element being included. The macular region of the retina is a spot where these conflicting conditions can be most favourably studied, but not I fear finally settled.

The *arcus senilis* is an opaque or semi-translucent circular area in the cornea, situated two or three millimetres from its margin. The opacity is due to infiltration with fats, especial cholesterol and lipochrome and to degeneration of elastic tissue near the periphery of the cornea. It rarely occurs in the young and may be absent in the old, but *it is a fairly regular accompaniment of advancing years*. It is characterised clinically by the existence of a clear area of cornea which is always found between it and the extreme margin, it is not at the periphery of the cornea, but close to it, and so can be differentiated from a scar due to a marginal corneal ulcer, the latter usually involving the cornea right up to its extreme edge. It is of no practical importance as it does not interfere with vision or in any way alter the refractive condition of the centre of the cornea through which the light rays pass on their way to the retina.

The changes in the face associated with age are most marked around the eyes, and are due to absorption of fluid from the cells of the subcutaneous tissue and the orbit; to weakening of the orbicularis palpebrarum muscle and thinning of the skin. The eyeball becomes more deeply set within the orbit, the infra-orbital sulcus becoming more marked, the brows appear to overhang as a result and the skin at the external canthus is thrown into wrinkles "crowsfeet"; the upper lid droops and a partial ptosis is simulated whilst the lower lid either falls away from the eyeball (ectropion) or rolls over on itself and turns in (entropion). If you consider now with me some of these reproductions of paintings representing youth, middle age and old age you will notice the full round smooth contours of this boy's face compared with the faces of these old men, with their parchment-like skin, deep infra-orbital recesses, drooping lids and "lack-lustre" eyes; changes which can be seen beginning in the middle aged, but are not so definitely marked, as the faces of the middle-aged partake of both the characteristics of youth and age.

It is the mal-position of the lower lid that causes the aged most inconvenience, as owing to the punctum lachrymalia being normally pressed closely against the eyeball, the falling in or out of the lid margin leads to an interference with the escape of tears from the conjunctival sac and any irritation such as a conjunctivitis or cold wind, or smoky irritative atmosphere, results in a "watery eye." This senile entropion may be remedied by removing some of the redundant skin and underlying orbicularis muscle, but a simple mechanical device is sometimes sufficient, and you will find that surgical interference is avoided by old people as much as possible. An entropion prop made by any skilful optician consists of a small arm (a few millimetres long with a vulcanite pad at the end) attached to the lower edge of the rim of a pair of spectacles. It protrudes backwards so that the vulcanite pad makes pressure on the lower lid just above the lower margin of the orbit, and so (by pressing the tissues backwards) causes the edge of the lower lid to tilt forwards. Sometimes this entropion causes a considerable irritation of the lower part of the conjunctiva, owing to the eyelashes being directed towards and rubbing against this delicate membrane and the lower margin of the cornea.

When surgical interference is advisable and the patient allows it, it is necessary to remove a considerable amount of the skin of the lower lid, along its whole length, and this may be done under a local anæsthetic by injecting some novocain into the loose cellular tissue of the skin and then pinching up about half an inch and cutting it away with a pair of sharp scissors; the hæmorrhage is generally fairly free, but is easily controlled. Next the muscular layer should be seized in the same way and removed to the same extent, so that the bottom of the wound is occupied by the tarsal plate and deep connective tissues.

I find it best to omit any stitches and allow the edges of the wound to fall together as far as possible and where this is not complete to allow the wound to granulate up, thus increasing the pull outwards on the rolled in margin of the lid. The most common cause of failure in this operation is due to the fear of removing too much and so not relieving the condition entirely.

Senile entropion of the upper lid is remedied by a different operation, but this condition is usually due to cicatrisation and is not so frequently found as an accompaniment of old age. A wedge-shaped piece of the tarsal plate near to the ciliary margin is removed, together with the muscular layer and skin above it; the apex of the wedge being close to the conjunctiva, the marginal gap thus formed is closed by stitches. Senile ectropion is remedied by removing a part of the swollen and exposed conjunctival mucous membrane. In the case of the patient shown you here I intend treating the ectropion by a wide V-shaped incision, made below the lower margin of the lid, the base of the triangle involving the whole width of the lid and then converting the V into a Y by stitching the lower half of the sides of the triangle together and pushing up the skin in the upper half so as to free the lower margin of the lid.

If as a result of the mal-position of the lids epiphora is a marked symptom, considerable relief may sometimes be obtained by slitting the lachrymal canaliculus and converting it into a trough into which the lachrymal secretion can the more easily flow, astringent antiseptic drops being used to remedy the trouble still further. A similar, but less important occurrence due to age is that of small hæmorrhages in the sub-conjunctival tissue due to the inability of the unsupported conjunctival capillaries to resist any sudden or increased pressure occurring during coughing, straining, etc., is the cause of these, but, although sometimes alarming in appearance, they have no serious consequences.

The changes then of the tissues which are characteristic of physiological old age as distinct from morbid old age are in the cells. They consist mainly of a loss of fluid and atrophy of the cells, which become smaller and more fibrous. This, in the lachrymal gland, causes a diminution of its secretion; in the clels of the lens, a hardening and sclerosing process; in the tissues of the lids, a shrinking and general flaccidity; in the tissues of the orbit, a slight exophthalmos and a general wasting in the orbital contents; in the cells of the retina, a diminution of their function, and in the terminal capillaries, that they are no longer permeable, as far as in youth and so diminish the nutrition of the macular region.

Healthy old age is rare and in the majority, though not in all, is complicated by morbid processes. It "*should* be a normal process of involution with progressive atrophy and loss of vitality and free from any morbid change due to other factors whether extrinsic such as infection, or intrinsic and due to abnormal metabolism."

Crimes of Violence.

An Address delivered to the Pupils' Physical Society by Sir BERNARD H. SPILSBURY, M.A., M.B., B.Ch., M.R.C.P.

THE busy medical practitioner has little opportunity of gaining experience in the investigation of crimes of violence; the disorganisation which it produces in his daily routine, the feeling of uncertainty as to what is expected of him, and his reluctance to shoulder so unusual a responsibility, together with the dread of falling short in his duty, combine to render his task anything but an agreeable one.

In addition to purely medical duties he may be called upon to take a dying declaration, a process which is full of pitfalls. If death has occurred he should at once note the changes which will assist him in estimating the time of death, and he should also endeavour to ascertain without disturbing the body, the cause of death, and search for indications pointing to accident, suicide, or homicide. The position and attitude of the dead body, the character and distribution of any wounds, the amount of blood which has been shed, the position of a weapon and the signs of a struggle are among the more important conditions which should engage the attention.

From the development of the powers of observation and of correct deduction as a part of his medical training, and from the fact that

he is often the first person to be summoned, who is in a fit condition to exercise them, the medical man is peculiarly fitted to carry out investigations of a more general character, such as are usually left to the police, and observations which may seem at the time to have been of little value have sometimes afforded a means of testing the account given by a prisoner on his trial. Occasionally it is possible to reconstruct a crime of violence when accurately recorded data are sufficiently complete. The additional information gained at a later period by a careful post-mortem examination will greatly assist the medical man in drawing correct inferences.

I propose to give a brief account of a number of criminal cases which have been selected with the object of impressing upon you the advantage of combining with a careful medical examination observations of a more general character, and of pointing the moral when such observations have been lacking or inadequate.

The first case is that of a soldier in an Australian camp at Aldershot who was charged with the murder of a comrade by shooting him. The two men were the sole occupants at night of an army hut which they used during the day as Lewis gun instructors. On the night of the crime shortly after the sound of a shot had been heard, the accused man informed the guard that his comrade had shot himself. The victim was found dead with a bullet wound in the head. The medical officer who was summoned noted accurately the size, the characters, and the position of the entrance and exit wounds. The coroner was informed, and an inquest was held without a post-mortem examination, a verdict of suicide being recorded. In the meanwhile the conduct of the prisoner had aroused suspicion. He was detained and later was arrested and charged with murder, and at the time of my investigation six weeks later he was awaiting trial at the assizes.

The dead man was found lying on his back in bed covered with bed clothes up to the chest and clothed in his underwear and socks; his face, which was turned to the right lay on the edge of the bed. The entrance wound was immediately below the left malar bone, the wound of exit was behind the right mastoid. The weapon, a service rifle, lay close to the bed between his outstretched arms, but it was not grasped, nor were the hands blackened. The bullet had then passed through the bedding and through a pillow, consisting of a bag which contained his uniform. I ascertained that as it passed through these articles no object had been struck by the bullet which would be likely to have deflected it. The bullet then passed through the wall of the hut, which consisted of two layers of three-ply wood, afterwards striking the path outside the hut. The bullet had not been deflected in its passage through the wall of the hut, which it traversed in a downward direction at an angle with the horizontal of 35 degrees.

The line joining the entrance and exit wounds in the head crossed the central nervous system at the junction of brain and spinal cord. Paralysis must have been instant and death immediate. I concluded that the bullet was unlikely to have been deflected in its passage through the head, and the line projected from the hole in the wall gave the exact course of the bullet from the time when it left the weapon. The weapon must have been held in this line at an angle of 35 degrees with the horizontal.

Experiments made with the weapon, using cartridges of the same pattern indicated that the wound on the cheek corresponded with a muzzle distance of five inches, and was certainly more than two inches. The weapon measured three feet six inches from muzzle to trigger. The dead man was five feet seven and a quarter inches in height. It was found impossible for a man six inches taller to touch the trigger with his finger, when lying in the same position, with the muzzle two inches away, and he could only just touch the trigger with the muzzle pressed against the cheek. The dead man could not therefore have fired the weapon with his hand, and he could not have done so with his toe, as his lower limbs were covered with bed clothes. The wound could not therefore have been self-inflicted, and as the prisoner was admittedly the only other person present he must have discharged the weapon.

The reconstruction of this crime six weeks after its commission was rendered possible by careful observations made at the time, and by the preservation of much valuable material.

It is sometimes difficult to judge, from a wound in the throat, whether it is of suicidal or homicidal infliction, and in such cases an examination of the clothing of the victim may

afford valuable indications, for a suicide generally bares the throat, and applies the weapon to the spot, while a murderer often makes a sweeping cut which starts in the air, cuts through any clothing in its course, and terminates beyond the injured area.

An instance of this was afforded by the examination of a young married woman who was found dead early one morning in a quiet lane, and whose husband was convicted of her murder. She had a gaping incised wound four inches long on the front and right side of the neck; it was deep and was undercut at the right end, it divided the internal jugular vein and opened the larynx. The medical man who first examined the body was in doubt as to the direction in which the weapon had been drawn across the neck, and although no weapon could be found, he thought that it was possibly a suicide. An examination of the woman's clothing before removal from the body disposed of any doubt. A fur collar around the neck was almost completely divided, and a lace collar beneath it was cut. The woman wore a knitted jumper, and across the front of the left shoulder of this garment was what appeared to be a long tear. This proved to be a clean cut, the edges of the cut having become unravelled. There was no blood on the cut edges, and the wound had therefore been inflicted from left to right. The fur collar was cut through immediately beyond the termination of the wound in the neck. A blood-stained razor found in the prisoner's possession had a number of hairs adhering to the blade. These had the microscopic structure of rabbits hair, and they corresponded with the fur of the collar. This proved that the collar had been divided after the wound had been inflicted, and that this was the weapon used by the murderer, who had stood behind the victim and made a sweeping cut holding the razor in the right hand.

In a similar case a young woman had her throat cut, the assailant standing behind her and holding the weapon in the right hand. The wound was a long and a deep one, and formed a curve which extended across the front of the neck and upwards on the right side to a point behind the ear. The common carotid artery, the internal jugular vein, and the larynx were opened. Examination of the girl's beaver hat showed a clean cut through the broad brim on the right side of the head and the lower edge of the cut was smeared with blood; the cut had been made after the weapon had inflicted the injury on the neck. An interesting feature of this case was the fact that the girl with these severe injuries had run a distance of about fifty yards along a winding path in the dark, and had entered the house before she lost consciousness. Another interesting observation was made by my colleague Sir William Willcox, who examined the assailant's clothing and noted that the recent blood stains had an unusually pale colour. On enquiry it was ascertained that the girl was under treatment for chlorosis.

The next case is that of a man who was convicted of the murder of three wives by drowning them in their baths, the so-called "brides in the bath" case.

It is probable that a careful investigation such as was made by the police after the arrest of the prisoner would have cut short his career of crime if the details had been available when the inquests were held upon the victims.

In one of the cases the prisoner had purchased a bath only a week before the death, and it was placed in an empty first-floor bedroom where there was no water supply or waste-pipe connection. The prisoner's statement was that he had left his wife alone in the house for half an hour and that on his return he found her dead in the bath, which was about three parts full of tepid water. The victim must have heated the water and carried it up to the bathroom from the ground floor during this time. The police found that more than twenty full buckets of water would be required to fill the bath to that level, and that one person could not have done this in half an hour, apart from the time required to heat the water. In another of the cases the bath was very narrow at the foot end, where it measured 19 inches across the top and only 11 inches across the bottom. The prisoner had told the coroner that he found his wife lying at the foot end of the bath, and when he was seen he was supporting her in a half-sitting position at that end of the bath. When the body was exhumed it was found to be that of a short thick-set person, the measurement across the hips being 16 inches, and she could not therefore have sat at that end of the bath. The body had been rotated into that position by the efforts of the prisoner to keep her submerged, and a large quantity of loose hair in the water indicated that she had been firmly

grasped and held down by the head whilst the lower limbs were raised out of the water.

The next case is one in which the medical examination not only established the cause of death, and showed it to be the result of a criminal act, but was also able to fix approximately the time of death, thus assisting in establishing the guilt of a doctor who was charged with causing death by performing an operation to procure abortion. The victim, after making an appointment with the doctor, lunched with a friend at 1.30, and arrived at the doctor's surgery accompanied by the friend at 4 p.m. for the purpose of having the operation. The friend, on calling for her about two hours later, was told that she had left the surgery and that nothing had been done. The dead body of a woman was found about eleven hours later under an archway in the street, at a short distance from the doctor's house, and it was the doctor who pointed out the body to the police. A post-mortem examination of the body showed no natural cause for death, but the uterus had been tampered with, the neck was slightly dilated and the uterus contained an ovum of less than two months' gestation, which was completely detached and floated in about half an ounce of fluid blood. The inner surface of the uterus was lined by shaggy decidual tissue in which a furrow ran upwards for a distance of three-quarters of an inch from the internal os. There was no blood in the cervical canal or vagina. It was clear that an instrument had been passed into the uterus and had caused hæmorrhage which had detached the ovum. The absence of blood in the cervical canal and vagina indicated that death must have followed very speedily, and I came to the conclusion that death was due to shock, caused by the insertion of an instrument into the uterus for the purpose of procuring abortion. An examination of the stomach showed the presence of partly digested food amounting to about eight ounces, and consisting of meat, potatoes and pickles; similar food in a more advanced state of digestion was traced throughout the duodenum and jejunum. I estimated that this food had been taken between two and three hours before death.

The body was subsequently identified as that of the woman who had visited the doctor's surgery at four o'clock on the previous afternoon, and the lunch which she had on that day was found to correspond with the food found in the stomach. Her death must have taken place within half an hour of the time when she entered the surgery, with the avowed intention of having an operation to terminate pregnancy, and one of her ear-rings found behind a couch in the surgery formed another link in the chain of evidence which convicted the prisoner.

In cases of wounding, the distribution of blood on the surrounding objects sometimes gives valuable indications of the nature of the attack. Blood may be sprayed by the cutting of an artery in a wound, but it may also be scattered from the blood-stained weapon when several blows are struck and the later blows if delivered on a blood-stained surface will also splash blood on surrounding objects.

In the case of a man who was found unconscious on the floor of his bedroom and who had nine wounds caused by blows upon the head, the number and the distribution of the blood stains on ceilings, walls, and articles of furniture gave a much better indication of the savage nature of the attack than could be learnt from an investigation of the injuries on the head.

The injured man was lying between the bed and a chest of drawers and the lower parts of these articles were thickly splashed with blood. On the wall behind the chest of drawers were some hundreds of spots extending almost up to the ceiling and down the wall behind the chest. On the top of the chest were other blood spots. Many of the spots consisted of small clots, and in some of them were pieces of hair broken from the injured man's head. The number and the distribution of the spots, which had been flung off the weapon when it was raised above the assailant's head indicated that at least twenty blows had been struck. On the ceiling of the bedroom, radiating from the corner in which the injured man lay were five rows of blood spots caused in a similar manner, pointing to the delivery of five more blows, and these were delivered after the assailant had moved round to the opposite side of the victim.

On the other hand, blood splashed by a murderer on surrounding objects may almost entirely miss the clothing of the assailant, if the weapon has a large striking surface and is held in such a way as to shield the person of the assailant. This was the case where a man was charged with the murder of his wife and child by striking them on the head with the

blunt end of a chopper, the striking surface measuring about half the size of the palm of the hand. On the man's clothing were found only a few tiny spots of blood widely distributed, whilst the room in which the murders were committed resembled a shambles, blood being splashed on the walls and furniture.

These cases may be taken as examples of methods of investigation which may prove fruitful by supplying reliable information, the correct interpretation of which may enable a crime of violence to be visualised.

Correspondence.

Religion and the Growth of Knowledge.

DEAR Sir,—Dr. Haldane deserves the thanks of Guy's men for having given us the opportunity to listen to and to digest in the pages of the GAZETTE his thoughtful exposition of "Religion and the Growth of Knowledge." Every man who investigates Nature must sooner or later come to the conclusion that his knowledge is insufficient of itself to satisfy his understanding of this very Nature of which he is a part. He is therefore driven to supplement it by a process of reasoning which must always be more or less akin to groping in the dark. He supplements knowledge by faith. This must necessarily be uncertain and subject to change if it be of the right kind, for it must have a sure foundation of knowledge of the order of Nature, must accept no conclusions that are incompatible with this knowledge, and must therefore be susceptible of constant revision if necessary. Faith varies greatly in individuals, since it is influenced by differences of temperament and also, to an extent which is often lost sight of, by early training. Dr. Haldane has proclaimed to us the faith that is in him, and we cannot show our appreciation of this gracious act more surely than by following his example.

Two alternative definitions are possible of the order of Nature. We may assume either that Nature is one, and that she is all that is, or we may believe in a spiritual power outside of and in addition to Nature, a Creator whose creature she is and to whose will she is subject. Whichever belief we adopt we must abide by, to the total exclusion of the other. If we do not, we shall quickly land ourselves in all manner of inconsistencies, or so the matter appears to me. Now I believe, for better or worse, in the oneness of Nature and do not require the assumption of the intervention of an outside entity to satisfy my desire for logical completeness. I believe that Nature or Substance, to use a time-honoured word, is eternal, without a beginning and without an end. I claim, however, that this is a very different thing from a purely mechanistic belief. I agree with Dr. Haldane when he says: "It has become increasingly more evident that it is impossible to separate bodily from psychical activities and processes. They are inextricably bound up together." I believe that Substance has two attributes, or two sides to its very essence, one of which I would call structure or matter, and the other function, force, spirit or life. These two attributes are inseparable, since the one is a correlative of the other. They are not convertible into each other and are indestructible as Substance itself. I thus believe with Dr. Haldane in a spiritual side of Nature, so well expressed by him in the following words: "If we believe that Nature is intelligible, and that there is no such thing as a miracle, the existence of life as a natural phenomenon makes it certain that Nature is no mere mechanical system such as the sciences of physics and chemistry provisionally assume it to be. The fact that the variegated forms of life have developed gradually during immeasurable ages serves only to clinch this argument by making it all the more certain that life is actually a natural phenomenon and no miracle." But for the very reason that I subscribe wholeheartedly to these words, I am quite unable to agree with Dr. Haldane's later statement that: "The real world—that world which faith reveals to us—is spiritual." Setting aside the question of reality which I am incompetent to deal with, with the only weapons that I have the least skill to use, namely those of science, and setting aside the other question if faith alone is competent to reveal it, I find it totally impossible to shut my eyes to the fact that the material world is of just the same paramount importance to me as the spiritual world, since neither, in the terms of my faith, exists apart from the other. I fail to see any fundamental difference whatsoever between the simplest chemical reaction and the highest expression of organic life. The one is, to my mind, as surely a sign of "life" as the other, an expression of the spiritual attribute of substance. No chemist can explain* the remarkable fact that chemical reactions are constant in a given environment. It is easy to say that the substances *must* combine in a certain manner, but what is it that compels them to do so? I do not know what this power is. It is dependent either upon the essential intrinsic nature of the substances themselves, or reaches them from without. I believe, in common with all scientists, that the former is the case, and accept it as an expression of life. Dr. Haldane uses the phrase "blind mechanical behaviour" in respect of physical and chemical phenomena. But does not the word

*We must bear in mind that science has no concern with reality. Its object is not to explain events, but to subsume facts under ever widening categories and thus to formulate laws or principles into which they fit. We may believe in reality, but cannot get to know it.

"behaviour" tacitly imply a spiritual activity of some kind? This can be blind, but can it ever be mechanical?

In discussing consciousness Dr. Haldane remarks that: "To represent it (*i.e.*, conscious experience) as existing here and now within the nerve-cells of the brain is equally meaningless." We here appear to begin to part company, since I believe that consciousness is the functional or spiritual attribute of Substance as modified in the ganglion cells of the brain. It is true that the only consciousness that I have direct knowledge of is my own, and that I can only infer its presence in my fellow men and some other animals from their actions. But I believe that the data I thus acquire are sufficiently accurate to be of scientific value for me. Now, consciousness appears to me to be closely related with memory, but not necessarily to depend upon it. Even when it appears to be most highly developed it is not a continuous process, but is subject to so many physiological and pathological interruptions that I would draw the inference that it is essentially a discontinuous process in its earlier stages of evolution. I fail to see an essential difference between consciousness and the tropisms of the lowest creatures. To turn to or away from the light necessitates, to my mind, a certain rudimentary feeling of attraction or repulsion, which I believe to be conscious. It is possible, if not probable, that this is forgotten as soon as experienced. But I can see no objection to the assumption that there is a sort of general rudimentary "protoplasmic" or "cellular" consciousness before the central nervous system is developed. With the appearance of this system we get the possibility of a more and more nearly continuous process of consciousness. It is certainly a suggestive fact that, in the higher animals at all events, the nerve-cells are *par excellence* the cells of the body which retain their individual existence until the death of the organism. This suggests very strongly that they retain sensory impressions and are the structural correlative of memory. Were they to divide their identity would be lost, and the modifications they have acquired during their individual lives be obliterated. I could have wished that Dr. Haldane had let us into his own beliefs concerning consciousness a little more fully. I am somewhat in the dark about them, but feel that they are very different from mine.

Dr. Haldane has, up to this point, adopted a naturalistic attitude if I read him aright. But, to my dull brain at all events, he appears to express a theistic faith when he asks the question: "Are we also to believe, if we still believe in God, that he created the world as a mechanical system, and then left it, with mankind in the midst of it, to go to ruin as all mechanical arrangements must ultimately go to ruin?" My answer to this can only be: I, for better or worse, do not believe in a God who has created the world. In my belief the world or, to put it more precisely, Nature or the universe, has never been created. It has evolved by slow degrees. The endless potencies that are inherent in Nature have gradually emerged as characters. This they have done in obedience to a *nisus* or trend inherent in Nature constantly to undergo new and progressively more complex modifications. By a process of natural selection those characters have emerged and survived that were viable, *i.e.*, in harmony with their environment or the influence exerted on them by the other modifications of Substance that were undergoing their evolution. Nature has not been created and is not controlled by an independent intelligence, nor by blind chance, but because of a necessity inherent in her very essence. This is my faith. I believe of all the modifications of Nature or Substance that, just as they have had a beginning, so will they come to an end, to begin again upon a fresh cycle of evolution. It matters not a jot to mother earth that man lives in her midst. She will roll on through space to fall back into the sun from which she came. Man's presence or absence will not delay her end by the fraction of a second. In the words of Goethe:—

Nach ewigen, ehernen
Grossen Gesetzen
Müssen wir Alle
Unseres Daseins
Kreise vollenden.

I am, dear Sir, your obedient Servant,

G. W. NICHOLSON.

Guy's Hospital,
London Bridge,
S.E.1.

Guy's '89 Club.

DEAR Sir,—On the second Wednesday in May (May 14th) the above Club hold their Twenty-Ninth Annual Dinner at the Hotel Cecil.

I should be glad if any members who have changed their address since last year will let me know so that I may send them the official notice in due course.

Dr. H. A. Munro will be in the Chair.—Yours faithfully,

GERALD S. HOVENDEN,
Hon. Sec.

Glebeholme,
Barnes, S.W.13.
29th March, 1924.

Rugby Football.

DEAR Sir,—The "Rugger" team having completed their programme for 1923—4, I enclose chart and statistics for the past Season. All things considered, the results are fairly good.

From the figures it can be seen that our defence was considerably stronger than our attacking power. With the notable exception of Oxford University, the programme was almost as the previous season, except that fewer games were played, also the team did not tour during the season.

Unfortunately we have lost the Hospital Cup this year, but I think it was "Bart.'s" turn.

Possibly our two best wins were against Gloucester at Honor Oak Park, and the final game when we beat Swansea in Wales. It is interesting to note (if my records are correct) that Holloway has played in every match; this is indeed a fine record.

It is also worthy of note that Scholefield played in an English Trial game.

The following figures show our records for the past three Seasons:—

1921—22.—Played 35; Won 26, Lost 7, Drawn 2, Points for 467, Points against 162; 77 per cent.

1922—23.—Played 32; Won 19, Lost 9, Drawn 4; Points for 343, Points against 201; 65·62 per cent.

1923—24.—Played 27; Won 13, Lost 11, Drawn 3, Points for 285, Points against 151; 53·4 per cent.

I am, Yours faithfully,

"Thyrlstane," ROY C. HOLLOWAY.
The Highway,
Peacehaven,
Sussex.
2nd April, 1924.

Sport.

Rugby Football.

Guy's Hospital v. Swansea.

A GLORIOUS wind up was the victory over Swansea at Swansea, on Saturday, March 29th. Due to advantage being taken of every opportunity of scoring, and the splendid pace of C. L. Steyn which he put forth with such generosity. Good play from H. Graham-Davies, his fellow centre, and sterling work at full back by that versatile sportsman J. D. P. Spence. J. Durr, last Captain of Edinburgh University, and W. Myburgh from South Africa lent their assistance for the first time in the pack, where all did well, although for a time they were very much bustled by the home eight.

Before their home crowd a Welsh team always play their best. Rowe, Harding, and D. Parker, the Internationals, were not playing, but that takes nothing from our win, since W. D. Doherty, E. H. Fouraker and Fellowes-Smith did not go to Wales. It was from C. L. Steyn that the first try came, we were being somewhat hardly pressed, when Steyn intercepted and getting into his stride at once, he simply left his opponents standing to score triumphantly, with Graham-Davies easily kicking a goal. Guy's were now on good terms with themselves. Swansea returned to the attack and heeled repeatedly, trying all they knew to get over. The Hospital defence was splendid. Were they not 5 points up. There they were going to remain. Now Swansea tried short rushes and then from a scrum just on our line the citadel fell. Howells scored a try that was not majorised.

In the latter half, some fine play by Steyn and Graham-Davies ended in the last named scoring, his attempt to add the extra points being charged down. The same players were most concerned in our last score. Graham-Davies kicked up field for Steyn to race up, gain possession and then just show what sprinting was really like. Graham-Davies kicked the goal. Reads like all Steyn and Graham-Davies, but it wasn't quite that. They were always in at the death and that is what we have to write about. Just before the final whistle a home forward, T. Wilkins, scored an unconverted try for Swansea. Hence we won by 13 points to 6 points.

Congratulations to all who took part. The end of the season was great indeed, even though the earlier matches were a bit patchy.

Guy's Team.—J. D. P. Spence, J. Finnemore, C. L. Steyn, H. Graham-Davies, W. Orsmond, W. Meissner, J. G. Van Schalkwijk, E. E. Neser, N. M. Holloway, B. G. Scholefield, G. G. Cameron, F. W. Schabort, G. G. T. Tregarthen, J. Durr, W. Myburgh.

Resume of Season 1923—24.

Compiled by Mr. R. C. Holloway.

The following have played during the Season in the First XV.—

Holloway (27), Finnemore, Schabort, Cameron (25), Steyn (24), Meissner, Tregarthen, Spence (23), Graham-Davies, Neser (22), Van Schalkwijk (21), De Wet Vorster (19), Scholefield (18), Fellows-Smith (16), Fouraker (15), Badenhorst (12), Bekker(11), Doherty, Mostert (10), Hutchinson (9), Brayfield (6), Osmond (5), De Toit (4), Meacock, Radford, Baird, Jacobson, Trick, Eckhoff, Durr and Myburgh (1).

The following have scored tries—

Steyn (17), Fellows-Smith (10), Van Schalkwijk (9), Finnimore (8), Graham-Davies (6), Mostert, Spence (4), Fouraker (3), Orsmond, Neser, Holloway, Tregarthen, Scholefield, Schabort, Cameron (1).

The following have scored goals—

	Tries Converted	Dropped	Penalty
Neser ...	8	—	3
Graham-Davies ...	6	—	—
Steyn ...	5	1	1
Van Schalkwijk	5	1	—
Tregarthen ...	1	—	—
Badenhorst ...	—	—	1
Spence ...	1	—	1

Making a total of—

Tries 69; Tries Converted 26; Dropped goals 2; Penalty Goals 6. Total Points 285.

Our Opponents Score was as follows—

Tries 34; Tries Converted 11; Dropped Goals 3; Penalty Goals 5. Total Points 151.

Therefore the Complete Figures are—

Played 27; Won 13, Lost 11, Drawn 3.
Total Points for 285. Total Points against 151.
Average Points for 10·5. Average Points against 5·59. Percentage 53·4 per cent.

United Hospitals Sailing Club.

A MEETING of the Club was held at Anderton's Hotel, Fleet Street, on the 26th March, when Mr. W. A. Lister gave a very entertaining account of his visit to the Small Boat Exhibition. The merits of three new types of small cruisers were discussed at great length, but serious disadvantages were found to all of them. In one the only mistake seemed to be that in passing from the cockpit to the cabin one had to squeeze through a narrow passage that separated the twin engines. This was

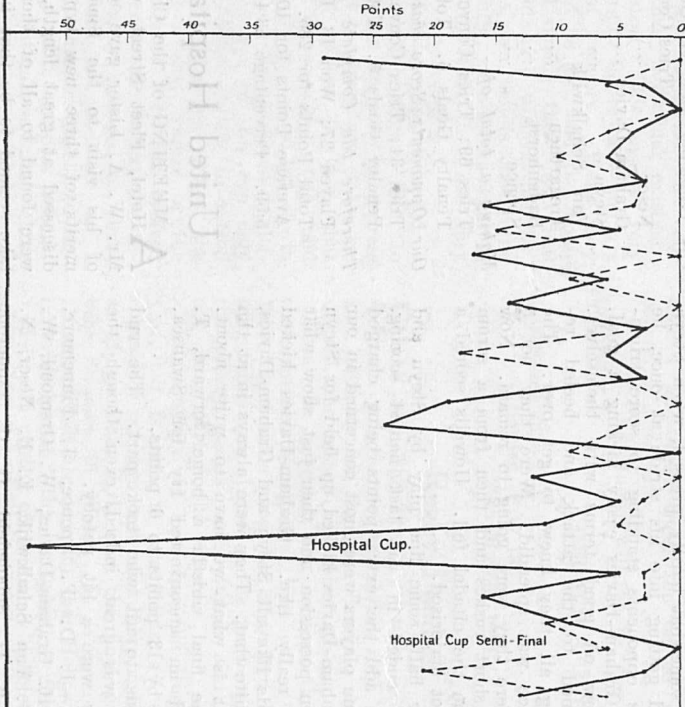
GUY'S HOSPITAL R.F.C.

SEASON 1923-24.

(For) — TOTAL POINTS — 285. Average Points per Match 10·5.

— Percentage — 53·4%

(Against) — TOTAL POINTS — 151. Average Points per Match 5·59.



OPPONENT	DATE.	G	Points F	Points A	F. G.T.	A. G.T.	TRY GETTERS.	GOAL SCORERS.
Catford Bridge	22.9.23	A	29	0	4.3	0.0.	Van Schalkwijk 1. Neser 1. Finnimore 1. Mostert 1. Steyn 2. G-Davies 1.	Steyn 2. Neser 1. Schalkwijk 1.
Coventry	29.9.23	A	3	6	+1 - +1.1			Badenhorst 1+
United Services	6.10.23	A	0	0	- - - -			
Gloucester	13.10.23	A	4	6	d1. - +1. 1.			Steyn 1d
Bristol	20.10.23	H	6	10	+1.1 d1.2.		Mostert 1.	Neser +1.
Harlequins	27.10.23	A	3	3	-1 -1		Van Schalkwijk 1.	
Old Blues	3.11.23	H	16	4	d2.3 d1 -		Mostert 1. Steyn 1. Van Schalkwijk 1.	Van Schalkwijk 1d. Spence +1.
Cambridge Univ.	7.11.23	H	5	15	1 - 3 -		Fellows-Smith 1	Neser 1
Coventry	10.11.23	H	17	0	1.4 - -		Finnimore 3. Van Schalkwijk 1.	Spence 1.
London Scottish	17.11.23	H	6	9	-2 -3.		Fellows-Smith 1. Finnimore 1	
London Welsh	24.11.23	A	14	0	1 3 - -		Fellows-Smith 1. Spence 1. Van Schalkwijk 1. Graham-Davies 1	Neser 1.
Blackheath	1.12.23	A	3	3	-1 -1		Steyn 1.	
Cardiff	8.12.23	A	6	18	+1.1 3d4.d1		Meissner 1.	Neser +1.
Aberavon	15.12.23	A	3	5	-1 1·0		Fouraker	
Old Alleynians	29.12.23	H	19	0	2.3 - -		Orsmond 1. Steyn 1. Van Schalkwijk 2. Schabort 1.	Neser 2
Old Merchant Tayl.	5.1.24	H	24	5	3.3. 1-0.		Fellows-Smith 1. Steyn 2. Finnimore 1. Van Schalkwijk 1. Cameron 1.	Van Schalkwijk 2. Tregarthen 1.
Bristol	12.1.24	A	0	9	- - - 3			
Gloucester	26.1.24	H	12	0	-4 - -		Spence 2. Holloway 1. Scholefield 1.	
Cambridge	30.1.24	A	5	3	1·0. -1		Finnimore 1	Van Schalkwijk 1.
Old Leysians	2.2.24	A	11	5	1.2 1·0		Steyn 1. Spence 1. Van Schalkwijk 1.	Van Schalkwijk 1.
University College	7.2.24	N	53	0	d3 5 - -		Fellons-Smith 5. Graham-Davies 1. Steyn 4. Finnimore 1. Fouraker 1	Graham-Davies 3. Steyn 3. Neser 1. 1+
Devonport Services	9.2.24	H	5	3	1·0 -1		Fellows-Smith 1.	Neser 1.
United Services	16.2.24	H	16	3	2.2 -1		Mostert 1. Graham-Davies 1. Steyn 2.	Graham-Davies 1. Neser 1.
Plymouth Albion	23.2.24	A	9	11	+1.2 1.2.		Steyn 1 Fouraker 1.	Steyn +1.
Barts Hospital	28.2.24	N	0	6	- - +1.1			
Birkenhead Park	1.3.24	A	3	21	-1 3.2.		Graham-Davies 1.	
Swansea	29.3.24	A	13	6	2.1 - 2		Steyn 2. Graham-Davies 1.	Graham-Davies 2.

PLAYED 27. WON 13. DRAWN 3. LOST 11.

+ Indicates Penalty Goal. d Indicates Drop Goal.

easy enough to accomplish on the showground even in white flannels, but would be a very different matter in a heavy sea when the engines were running. For marine engines are sometimes very lavish with the contents of the crank case and have a way of making their oily presence felt for a considerable distance around them.

Many new types of dingheys were discussed including a new folding dinghey, but it was not thought to have any real advantage over the Berthon, James or Oxford folding boats. There was a freak dinghey 9ft. long weighing and costing fifty pounds. It was beautifully built and would solve all the dinghey problems—at a price. One feature of the Show was an excellent line of 19 footers, well built and fitted out, for twenty-five pounds. These would be within the means of many students and looked fast and seaworthy boats. A good deal of the tackle was fly-weight stuff, but this could easily be reinforced where necessary. There were many new ideas in the cookery line, including a hay-box guaranteed to keep a meal hot for twelve hours, a bit rough on the vitamines perhaps, but what need of vitamines when the salt spray is flying!

There are to be two more general meetings of the Club this season—one in April and one in May.

A scheme is on foot to establish a small number of sailing dingheys either at Fambridge on the Crouch on at Heybridge on the Blackwater where members could go for week-ends. The boats would be allotted to the hospitals in turn and there is no doubt that a great deal of sport could be had from them—to say nothing of regattas. The main difficulty is a financial one and whether we shall be able to carry the project through or not will depend very largely on the amount of support which the Club receives. So far four hospitals are actively and keenly interested, St. Bart.'s, London, St. Thomas's and Guy's, and we have every hope that the other hospitals will soon be drawn in.

Guy's Hospital Dental Society.

25th Annual Dinner.

THE 25th Annual Dinner of the Guy's Hospital Dental Society was held at the Trocadero Restaurant, on March 22nd, when Mr. E. C. Hughes presided over a large company of members and their friends.

The toasts were proposed and acknowledged in speeches, which were short and entertaining and went something like this:—

Professor Bayford Underwood (Dean of the National Dental Hospital), after denying that he was either a Dean or a Professor, proposed the prosperity of "Guy's Hospital and Schools." No one, he said, could run a hospital without a medical school, nor could they run it properly without a dental school. There was an extinct animal, so he affirmed, honoured if of ridiculous memory, whose upper teeth came down over his lower jaw and so prevented him from opening his mouth. This animal was the Mesoplodon (or some such name), and typified a medical school without a dental school, which would never dare to open its mouth. Mr. Underwood concluded by congratulating the Guy's Staff on its enterprise and progress, Mr. Doubleday, on giving up coaching for motoring, and the house-surgeons on their pretty display of spring ribbons in the Conservation Room.

In replying for the Hospital, Mr. F. P. Whitbread (The Treasurer of the Hospital) said he thought we all probably regretted that he was not like the Mesoplodon. He had only just commenced his duties as Treasurer and in a few months time we should be celebrating the bi-centenary of the Hospital and the centenary of the Medical School. His post was not an easy one—it would be easier if he could find a man to leave a quarter of a million pounds to the Hospital—but as long as he had backing he hoped to do justice to his office, whose duties he took up with confidence.

In replying for the Schools, Professor T. B. Johnston (Dean), promised all kinds of improvements. After that very night the smoke from the bacon factory would be nothing but a fragrant memory, the building being about to be replaced by a new Childrens' Department, Dentures Department, etc. He then told us how a friend of his, who had lost a wallet in Bond Street, was found looking for it in Piccadilly Circus, because there was more light there, and how another of his compatriots, who was arraigned for arriving from Scotland in a drunken condition at King's Cross, pleaded as excuse that he had fallen into bad company—a carriage full of teetotallers and a bottle of whiskey. (Each of these stories had a very excellent moral attached, but for the moment they escape us.) Finally he said that although he regretted that so many of the athletic cups had left Guy's this year, two events would live in his memory long after they had all returned—one was Spence's tackle of Thomas, long after hope of winning the cup-tie had gone, and the other was Holloway's fight in the boxing competitions.

Mr. J. B. Pritchard proposed the health of the visitors, to which Mr. Livingstone (King's College Hospital) replied that it was entirely due to Mr. Dowsett that he was there that evening. Ten days before the final examination he had bought Mr. Dowsett's book.

Mr. Montague Hopson, from whom a speech was vigorously demanded, gave some very interesting accounts of the various friends he had made of the name of Hughes. The most interesting was the lady of that name, who presided over the counter of the village sweetstuff shop. Mr. Hopson had her photograph in the place of honour on his mantel, and a friend, seeing it there and finding out where she lived, borrowed ten shillings from him and took Miss Hughes on the river. The fact that he had financed the expedition caused the speaker much mortification.

Mr. W. H. Foy (The Honorary Secretary), in an able manner said what a good Chairman the Chairman was, and in reply the Chairman said what a

magnificent Secretary the Secretary was. Most men took the Secretary at his face value, but he had gone further than his cherubic exterior and had probed the deep fascia, finding all within free from corruption.

In fact at this stage of the evening, each diner was his neighbour's long-lost brother, and the excellent musical programme being over, we sang Auld Lang Syne to each other and went home.

Guy's Hospital Dental School.

THE Prize for Operative Dental Surgery has been divided equally between the following Students:—

Mr. G. W. DIBBLE.
Mr. G. W. GATHERGOOD.
Mr. H. E. SPENCER-PAYNE.

A Certificate has been awarded to:—
Mr. H. M. PIMM.

Hospital Information, etc.

Pass List.

University of London.

Second (M.B., B.S.) Examination for Medical Degrees.

March, 1924.

P. Berry.
*R. C. Brock.
C. A. N. Heicks.
M. L. Hutchinson.
A. B. Hyman.
W. Mayne.
L. G. J. Pitt-Payne.
E. H. Roche.
J. W. Schabort.
A. Signaiewsky.
N. H. Skelton-Broune.
J. R. C. Spicer.
S. E. Theis.
S. R. Trick.
J. M. Turner.
S. D. H. D. Wallis.
J. K. G. Way.
J. G. Weston.

*Distinguished in Anatomy.

Part I.

S. I. Abrahams.
H. W. Applin.
I. Bakhsh.
E. T. Conybeare.
J. E. Crooks.
S. J. M. De Nevasquez.
D. E. Dunnill.
H. N. W. Harley.
G. M. Housden.
W. F. Hudson.
J. M. Hulett.
P. H. Loretz.
W. S. McConnell.
J. E. Morton.
C. M. Ockwell.
N. E. Pitt.
W. G. Porter.
J. R. Rickett.
E. C. Till.
R. S. Twigg.
J. A. Vernon.

Change of Address.

R. H. Rix, L.D.S., R.C.S.Eng., 4, Upper Wimpole Street, W.1.

J. Jordan Coleman, 6, The Chrescent, Ripon.

Ivan B. McCann, M.R.C.S., L.R.C.P. The Central Home, Union Road, Leytonstone, E.11.

F. Tooth, c/o Mrs. Archer, Nether Storvey, Bridgewater, Somerset.

E. H. Richards, 150, Harley St., W.1. ('Phone: Langham 1595, Streatham 3473.)

Papers by Guy's Men.

C. Worster-Drought, M.D. (1) Case of Juvenile Tabes Dorsalis in Girl, aged 10 years. (2) Case of Early Friedreich's Ataxia (shown for comparison with the Case of Juvenile Tabes Dorsalis).—Proc. Roy. Soc. Med., xvii., 1924, Sec. for the Study of Dis. in Childr., p. 18, 19.

T. Izod Bennett, M.D. Choreiform Movements Persisting for Four Years.—*Ibid.*, p. 24.

Guy's Hospital Chapel.

Holy Week and Easter.

HOLY Communion, daily at 7 a.m.
Special Preachers at 9.0 p.m.:—

Monday, April 14th—
The Rev. S. R. B. CORNISH, Hospitaller of St. Thomas'.

Tuesday, April 15th—
The Rev. G. A. STUDDERT-KENNEDY, M.A., Rector of St. Edmund, Lombard Street, and Hon. Chaplain to H.M. The King.

Wednesday, April 16th—
The Rev. B. W. B. MATTHEWS, B.A., Vicar of Holy Trinity, Lambeth.

Maundy Thursday, April 17th—
Preparation for Easter Communion, 9.15 p.m.

Good Friday, April 18th.—
Three Hours' Service (12—3).
Conductor: The Rev. J. L. BOULDEN, M.A., Vicar of St. James, Enfield Highway.

Easter Day, April 20th—
Holy Communion, 6.15, 7 and 8.45 a.m.

Specialities.

"Birk's Junket Powder"

EDWARD BIRK & SON, LTD., 27, CASTLE CRESCENT, READING.

BIRK'S JUNKET POWDER, which has been carefully analysed and proved free from all harmful preservatives, consists of active rennet in powder, which is more convenient and reliable than the liquid form.

A small wooden measure is supplied with each bottle.

Junket is a valuable milk diet for warm weather for invalids, children or ordinary people. It is light, nourishing and easily digested.

The above powder should prove a boon, and we do not hesitate to recommend it.

"Swan Vestas"

MESSRS. BRYANT & MAY, LTD., who are well-known for the excellence of their matches, are the Makers of "Swan" Vestas, which we can thoroughly recommend, to smokers.

The flame is not easily extinguished by the wind, and the box is compact and convenient for the pocket.

Birth.

JOHNSON.—April 1st, 1924, at 26, Rodney Street, Liverpool, to Dr. and Mrs. William Johnson—a daughter.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *April 26th, 1924.* *Number 934*

PASSIM

WE are happy to be able to regard the British Empire Exhibition as a *fait accompli*, and amidst all the pageantry of its opening we must not lose sight of the significance of this vast undertaking, which should bring home to us the extent of the Empire and our brotherhood with those in the uttermost corners of the earth. To have been born a Britisher implies much, but our Falstaffian characteristics, be they never so well preserved, do not preclude a certain feeling of doubt when we are accused of insularity. Perhaps the Exhibition will help to relieve this consciousness of isolation.

As regards Medicine, Students of Hygiene, Public Health and Tropical Medicine will find much that will interest them at the British Empire Exhibition, and from the standpoint of general knowledge none can afford to miss such an excellent opportunity.

A loud speaker was kindly provided in Addison Ward by the *Daily Mail*, so that many patients and others at the Hospital were enabled to hear the King's Speech at Wembley, on Wednesday, April 23rd.

A CAMPAIGN is being launched by the University of London Union Society, and we would remind students at the Hospital that they are eligible for membership. The Union is analogous to those of the older Universities, and membership carries with it such advantages as access to the library at South Kensington, and for leisure moments, the Club in Malet Street and the Members' tennis ground.

THE structural improvements at the end of St. Thomas's Street have greatly facilitated the passage of vehicular traffic there, and we would remind the incautious pedestrian to muse on Victor Hugo's statement that "L'homme est condamné à mort avec des sursis indéfinis," and that reprieve will probably be withdrawn should he be in the habit of leaping before examining the conditions of his environment.

THE Annual Dinner of the Junior Guyite Club will be held at Frascati's Restaurant on Thursday, May 22nd, at 7.15 p.m., under the chairmanship of the President, Dr. E. W. Goodall, who is organising the Dinner. Mr. C. H. Fagge is Vice-President, and will be President next year. All members of the Club will hear with the greatest regret of the serious illness of Dr. J. A. Fraser, the Secretary, who for many years has organised the Dinner and on whom the very existence of the Club has often depended. We regret that he will be unable to attend the Dinner this year.

Fractures of the Lower End of the Radius.

Clinical Lecture by Mr. E. G. SLESINGER.

GENTLEMEN,—I make no apology for bringing the subject of fractures of the lower end of the radius before you again at so short an interval, because I find in the Fracture Department that whereas most fractures are remarkably skilfully dealt with when first seen in the Surgery, Colles' fracture provides in too many instances a melancholy exception to this rule.

Colles' Fracture is a fracture through the lower broad end of the radius, usually about half an inch from the joint surface and running obliquely from behind downwards and forwards. The lower fractured fragment is apt to be cracked, and impaction is quite common. Colles' fracture is one of the most frequent injuries with which you will be called upon to deal. In a recent series of 458 cases of fracture of the upper limbs, Colles' fracture occurred 73 times, and including those cases where in addition the styloid process of the ulna was fractured, 81 times, being second only to fracture of the clavicle in frequency. It occurs far more frequently in women than in men, in my series the proportion was as 47 to 26. This is very striking when it is remembered that taking all fractures into consideration the proportion is two in men to one in women, so that the above figures in regard to Colles' fracture represents more than four times the normal liability in women.

Another interesting feature about this injury and one that has considerable bearing on its treatment is the age at which it occurs. In my series in the women patients, more than half were over 50 years old and only one case occurred under 30. In men the age distribution is lower. In my patients the average age in women was 53·2 years and in men 42. *The mechanism of production of this fracture* is almost always a fall on the extended hand. usually with the elbow flexed and it is due partly to hyperextension and abduction at the wrist to which is added direct violence to the lower end of the radius.

In some cases where the abduction is extreme, in addition to the Colles' fracture there is rupture of the internal lateral ligament of the wrist or separation of the styloid process of the ulna. I have seen two cases where the abduction force had gone even further and produced, as one would expect, in addition, a transverse fracture of the ulna above the inferior radio-ulna joint. The mechanism in this last and rare type is the same as in Dupuytren's fracture at the ankle, except that the attachment of the inter-articular cartilage to the ulna determines the transverse fracture of that bone, instead of the tearing off of a flake with separation of the bones such as occurs in the ankle.

The displacement which occurs in Colles' fracture is constant in type, but varies in degree, being as in all fractures directly proportional to the fracturing force. It is of importance to you to understand the displacement which occurs because from it you can gather the correct method of reducing the fracture and the proper position in which to splint it after.

The lower fragment, as you would expect from the obliquity of the cleavage plane passes backwards, and at the same time rotates backwards.

To these two displacements the characteristic so-called "dinner-fork" deformity is due. Further, owing to the abducted position of the wrist in which the fracture takes place, the lower fragment is also displaced and rotated radially, though not to the same degree as it passes back. Lastly, the whole lower fragment is bodily displaced upwards on the shaft, and indeed the latter is not infrequently impacted into it, or short of impaction it may produce a fracture of the lower fragment itself.

The diagnosis of Colles' fracture is usually obvious at sight if the characteristic deformity is present. In those cases with little or no backward displacement, however, it may be far from clear, and in these most reliance is to be placed on the relative position of the styloid process of the radius. Normally this is at a lower level than the corresponding process of the ulna, but in Colles' Fracture it is displaced upwards so as to occupy the same plane or an even higher one.

It is better to rely on a comparison of the two wrists, and if that is done a diagnosis is usually possible.

Movement at the wrist joint is usually limited, and the patient complains of pain most often just below the extremity of the ulna, due to injury of the ligament.

Crepitus is seldom obtainable, and should not be sought for. In my opinion crepitus should practically never be relied on for the diagnosis of a fracture, partly because of its deceptiveness, but much more important, because of its painfulness. The sight of anyone endeavouring to elicit crepitus from a fracture, except under anæsthesia, is to my mind both reprehensible and unnecessary. Pain is a warning, a safeguarding mechanism, and the unnecessary production of pain is a senseless and dangerous procedure.

The most important method of diagnosis is by X-rays, and I cannot too strongly urge you always to have every fracture or suspected fracture X-rayed. There are those who chide us for placing too much reliance upon X-rays and who fear that reliance upon them may detract from our clinical acumen. I have no doubt that the same objections were raised to the use of the clinical thermometer and the stethoscope! I think the proper answer to this view is that it is our business to make a diagnosis, using all the means at our disposal, with the greatest possible certainty and the minimum of discomfort to the patient. It must be very exceptional nowadays for X-rays not to be available, and if they are available they must be used in every case of fracture. Stereoscopic X-rays will afford you the greatest assistance in forming a mental picture of the displacement you have to overcome, and although many rather decry their advantages I strongly recommend you to practise looking at them.

The most important question in connection with Colles' fracture is that of properly reducing the displacement, and it is because I see so very many cases inadequately reduced that I have chosen this subject to-day. Every case of Colles' fracture can be perfectly reduced if seen within twenty-four hours of its occurrence, and very often later. The usual obstacles to reduction, such as the distention with blood of the longitudinal ties of a limb, or the presence of muscle between the fragments does not occur with Colles' fracture and the disablement which results from imperfect reduction is such a big one that it is most important to aim at perfection and not to be satisfied unless it is obtained. Because of the relationship of the tendons of the wrist to the site of the fracture, a very small degree of displacement produces a marked limitation of movement in the wrist and fingers, and this fact forms a useful guide to the completeness or otherwise of the reduction. If, when a Colles' fracture has been reduced, the wrist can be passively flexed to a complete right angle, it can safely be assumed that reduction is perfect. You should never be content with a reduction unless this criterion holds good. The first point to consider in reducing these fractures is the question of anæsthesia. In almost all cases an anæsthetic is essential, and as many of these elderly women are not good subjects for gas, a general anæsthetic is preferable. The few hours' delay which the necessary preparation entails is of little consequence, and it is much better to be able to carry out an unhurried and complete reduction than to make half-hearted attempts upon blue and imperfectly anæsthetised patients under gas. The common method of reduction, the so-called "hand-shake" method is most unsatisfactory and puts an undue strain on the ligaments of the wrist. The easiest method is to have the forearm resting on a table with the hand projecting and to press firmly in a downward and forward direction on the upper edge of the lower fragment, and at the same time to adduct the wrist sharply. Usually reduction is easy, and knack rather than strength is required. If a small degree of backward displacement remains it can often be overcome by laying a wool pad on the projecting edge and hitting it smartly, but not too forcibly, with the hand. Test the reduction carefully by the flexed wrist test, and verify the position of the radial styloid. If this is still too high, the abduction has not been fully overcome, and this must be done.

Colles' fracture, as I have said, is very readily reduced when seen early, but the late cases are far more difficult and troublesome. In these cases it is sometimes possible to reconstitute the fracture with the aid of a Thomas wrench, and then to effect satisfactory reduction, while in others operation may be required, the fracture being reproduced by the chisel. In these late cases there is definite risk of damage to nerves, the median being especially liable to damage. Again, the sty-

loid process of the ulna, if the radial fracture is not reduced unites in faulty position and leads to a permanent radial deflection very difficult to overcome.

These cases should not occur, and a perfect functional result should be obtained in all recent Colles' fractures with a single exception. The exception I refer to is the type of patient who has rheumatoid arthritis affecting her hand at the time of the injury. Such a condition is not uncommon in the elderly patients in whom these fractures occur, and after the injury the disease tends to become rapidly worse, occasioning much limitation of movement. I find it of great value to put these elderly patients, and in fact all elderly persons with fractures, on a course of thyroid extract. Their power of repair is stimulated, and although one cannot obtain statistical evidence, I am satisfied that recovery is greatly hastened.

In cases where negligible displacement has occurred a splint is not necessary. *The displacing force, in every fracture is the fracturing force,* and although a once existing displacement may recur, as the result of the action of gravity on the distal part of the limb, it does not take place from the mythical muscular action we read about unless it was present at the time of the fracture.

In the cases with deformity, when reduced, it is most satisfactory to put them up in full flexion on a rectangular splint for 48 hours. Todd's splint is even better in that it ensures supination which is liable to be lost if the limb is allowed to remain in an anti-gravity position.

After 48 hours, gentle massage can be begun, the rectangular splint being removed for that purpose. Much has been written about early massage and the production of callus. Except in very occasional cases *callus varies directly with the degree of displacement,* and if reduction is perfect the callus will be minimal in amount. After massage the hand and forearm are placed on a straight splint with a tennis ball in the palm of the hand. This splint is to prevent redisplacement as a result of knocks, etc., as the fragments will be sufficiently stuck together to prevent it occurring from other causes. The object of the tennis ball is to restore the palmar arches and to prevent the tendons sticking by encouraging minimal active movements by squeezing the ball.

At the end of eight days or so all splints are left off, and massage, movement, and hydrotherapy are commenced in earnest. I cannot speak too highly of the value of the whirlpool bath at this stage. This is a bath of comfortably hot, rapidly moving and freely aerated water, and it produces a hyperæmia more rapid and more intense than anything else I know of. It is followed by massage and active movement of fingers and wrist, as well as active and passive supination. As I have pointed out elsewhere it is those muscles which normally act against the force of gravity which suffer most during the enforced rest after a fracture, and attention must be concentrated on these during the period of movement restoration. In Colles' fracture the anti-gravity muscles concerned are the supinators and dorsiflexors of the wrist. Very little pain will be felt by the patient after reduction. *The painful cases are the imperfectly reduced ones,* and once the bone is in good position the only pain usually complained of is over the ruptured internal lateral ligament. It will take some time before full and free movement is restored, the older the patient the longer the time. In my cases the average time in the women was 5·9 weeks and in the men 4·5 weeks. Results, except in patients with rheumatoid arthritis, are, on the whole, good, provided that the all-important reduction is complete.

Of the 73 cases I have mentioned, 8 were lost sight of, but were doing well when they stopped attending.

Of the remaining 65 cases, 51, or 78 per cent., had perfect results; 7, or 10 per cent., had results 75 per cent. of normal, and 7, or 10 per cent., which includes several very old patients, had seriously crippled wrists.

Separation of the Lower Epiphysis.—This injury is, as in all so-called separations of epiphyses, really a diaphyseal fracture, and is not very common, representing about 5 per cent. of all upper limb fractures. The mechanism is always the same as that of Colles' fracture in adults, and like it, it may be complicated by separation of the styloid process of the ulna. Owing to the more rectangular fracture surfaces, the displacement is less complicated than in Colles' fracture. The lower fragment is displaced backwards, and sometimes radially, but is very little rotated. As a result the deformity is unlike the "dinner-fork" of Colles' fracture, being far sharper and more angular. Impaction does not occur,

but the lower fragment may be compressed or even split into two.

The average age in 20 cases was 12 years (considerably older than in similar injuries to the humerus), and there were 18 males to 2 females. Reduction is very easy, and can be readily accomplished by pressing on the lower fragment, and there is very little tendency to redisplacement. It is most important to correct any radial displacement or irregular growth may take place, this being the growing end of the bone. The majority of cases require no splint at all, massage being begun at once, but where there is much extravasation of blood they have been treated exactly as I have described under Colles' fracture. Of the 20 cases mentioned, 19 had perfect results, and one which was not reduced until late had some limitation of movement. The average period of treatment was three weeks.

Chauffeur's Fracture.—This is a fracture of the styloid process of the radius, and is almost always perfectly true to type. The line of fracture runs from the middle of the joint surface upwards and outwards, and separates the styloid process and a triangular portion of shaft. The obliquity of the fracture varies with the car, and in the fracture department it has usually been possible to recognise the commonest agent of these fractures, the Ford lorry, by the X-ray plate. The mechanism of this injury is a sudden sharp blow against the thenar eminence. In the text-books some confusion exists on the subject of chauffeur's fracture, but the injury just described is the only one that can be properly so-called. There is usually very slight displacement, and if the patients are kept on a cock-up splint for a few days and then given massage, the results are invariably perfect. The average period of treatment is 3·5 weeks.

Fracture of the Lower Quarter of the Shaft.—The remaining fractures of the lower end of the radius form a somewhat motley group. Occasionally you find cracks running upwards from the articular surface, and only diagnosed on X-ray examination. These require no treatment beyond the ordinary massage and hydrotherapy applicable to a sprained wrist.

Another type of injury, which has been called Smith's fracture, represents a reversed Colles'. That is to say, the plane of fracture passes from in front downwards and backwards, and the lower fragment is displaced forwards. Some authors have misnamed this injury "Chauffeur's Fracture," but if it does occur as a result of starting a car, it is only if the handle is released and swinging round strikes the back of the wrist. Reduction is not easy in these cases, and when it is completed, the hand is best put up on a full cock-up splint. It is a rare injury and usually associated with considerable damage to the soft parts.

Correspondence.

Rugby Football.

DEAR SIR,—I am enclosing three years' Football Club Cards of some of the years about which you are seeking information. You will find pencilled notes of results of two of our Cup-Tie attempts. Guy's did not do very well in the Competition during my time as we were feeling the loss of such giants as Stokes, Johnson, Lister, Fraser, Veitch, etc. It may interest you to know that an old Guy's player senior to me, Dr. Milligan of Northampton, still retains his interest to the extent of acting as President of the Northampton St. James' very successful club. Possibly he or Dr. Stokes could give you some useful information.

I do not think it is sufficiently realised that the Hospital Cup Competition inaugurated the system of scoring by points. I cannot remember the details of scoring, but I remember that a point was awarded for a " touch down." In Club matches in those days 1 goal would counterbalance any number of tries. I make a point of seeing good Rugby football when I can and in some respects there is a great improvement. But none of the kicking is so good, especially drop kicking. And the throwing in from touch is very poor. L. Stokes was the finest drop and place kicker and punter I ever saw and could throw in perfectly straight half across the ground. Your editorial notes awakened many memories.—Yours faithfully,

ALFRED LINNELL.

9, Park Avenue,
Northampton.
April 18th, 1924.

DEAR SIR,—I have received the GAZETTE in which the "Rugger" figures, etc. for 1923—4 are given. I wish to point out an addition which I had omitted. In the list of tries scored, Meissner should have been given, he having scored 1 try. Also on the chart, the match v. Coventry, on the 10th November, 1923, Tregarthen's name should be added, he having scored 1 try, besides those given, i.e., Finnemore 3, Van Schalkwijk 1, while Spence converted one try. Otherwise all the figures are correct, the above two tries were included in the total figures that I gave.—Yours truly,

ROY C. HOLLOWAY.

Peacehaven, Sussex.
14th April, 1924.

Some Points from the Evolution of the Teeth in Man.

Paper read before the Guy's Hospital Dental Society, on January 25th, 1924, by C. H. EDNEY.

MR. CHAIRMAN AND GENTLEMEN,—Not long ago I was privileged, along with a number of my fellow students, to listen to a demonstration by Mr. Montague Hopson, at the Natural History Section of the British Museum, on the skulls of pre-historic man that are exhibited there. And after that first peep at this enthralling subject, led by a desire to see more of it, I extended my reading. So in this paper I have endeavoured to put down some of the more interesting points that have influenced my mind. Before the throne of great knowledge one cannot but be humble, and it is in this spirit that I deal with the questions to be discussed, combined with that of gratitude for the work of the masters who occupy it. If, therefore, I should, from time to time, express an opinion it is in no sense of conceit, but rather that we may pass a pleasant hour in friendly, and it is to be hoped, useful discussion. And if at the end you would pay it so great a compliment as to criticise it, however adversely, from you I hope to learn much. It has been necessary in places to tread what is for some of us old ground, although the effort has been made not to linger with too much detail there. With this, if with nothing else, I ask you to be patient in consideration of those other members who have honoured the reading of this paper, and who, of necessity, may be not quite so well versed in these elements. In order to be on firmer ground I have opened with a brief summary of the commencement of mammalian life, followed by a more detailed description of the various remains of our ancestors, that we may proceed to the points in the evolution of their dentition, which it is my aim to lay before you.

The history of evolution is locked up in the earth, the evidence lying in the strata of its crust, and the labour of the geologists, palæontologists, and archæologists, in their discoveries from time to time, has unfolded for us much of that enthralling story of our creation. Of geology I do not propose to speak, even had I the knowledge and ability, but if you will allow me I will just explain the chart you see prepared upon the board, which may help us to elucidate some of the points which we are about to discuss.

Geological time is divided into four great epochs: The Eozoic or lifeless, the primary or Palæozoic, which was the dawn of primitive life, the secondary or Mesozoic, the Reptilian Period, the tertiary or Cainozoic, which was the age of mammals and of man. These are sub-divided into shorter geological periods, named by the nature of rock which represents the duration of that period. As this paper is only concerned with the secondary and tertiary periods, I will not weary you with the earlier stages. We have then the Mesozoic epoch sub-divided into the Triassic of new red sandstone, the Jurassic of oolites, and the Cretacious or Chalk periods; then the Cainozoic into the Eocene of London clay, the Oligocene and Miocene of brown coals, the Pliocene of red crag, the Pleistocene of glacial gravels, and the Holocene of alluvial sands and gravels.

The lengths of the periods are estimated from the depths of the various strata, and the history of the evolution of life is worked out from the material found in them. From the fact that these geological formations and their fossils are found in different parts of the world the geologists and palæontologists are able to tell us relatively from where the genera and the species sprung and were evolved, and how they moved about on or settled in certain parts of the globe. Hence we learn the strange and fascinating truth that Polar regions had a tropical climate at the end of the Cretacious period; that the Atlantic was bridged by land uniting America, Africa and Europe, which together with Asia formed one vast continent. We learn also that in the Pleistocene great ice-sheets covered Europe as far as, or nearly as far as the latitude of London.

Before proceeding farther I would like to complete the description of the chart. As the remains of ancient man were brought to light with associated fossils and implements, the progress he was shown to have made was described in stages named by the places in which they were found. Thus "Anglian" from England, "Mousterian" from Le Moustier and so on. Taking the first appearance of man as early Pleistocene, you will see that the two latest stages of geological time are again sub-divided into Archæological periods. The Pleistocene is split into halves, the upper and the lower. The lower shows Anglian, Strepyan, Chillean, Achenlian, and Mousterian. The upper Aurignacean, Solutrean, Magdalenian and Azilean. This is the Palæolithic or old stone age. The Holocene contains the Neolithic, or age of polished stone, Bronze, Iron and Historic ages. These latter are in any case well within our historic memory, beloved of the humourous and music hall artists, and other members of the community disrespectful of their ancient lineage. If this remark should be facetious perhaps it may serve to suggest that these ages are arranged according to the intellectual advancement of man.

Where, when and from what source did man's ancestors arise? It is in the lower Eocene beds of America that Primates first made their appearance. Small creatures were found called anaptomorphi, which resembled Tarsius. "An animal," to quote Mr. John Humphreys, "which at present is placed at the base of the living Primate stock." The same writer, in a remarkable paper published in 1914 says: "We have the strange spectacle of this small creature appearing in North America in the dawn of the Eocene, persisting practically unchanged throughout a vast period of time, and now inhabiting the dense forests of Eastern Asia. We must look to such a creature as Anaptomorphus as the ancestor of the Primates, including monkeys and man." Professor Elliot Smith thinks that North America may have

been the original home of the Primates and that there and from there, far back across the myriad years to the early tertiary epoch the ancestors of the tarsius arose, and scattered the children of their being as the lemurs, the platyrrhine and catarrhine apes, and lastly man about the earth. He said in his Presidential address to the Anthropological Section of the British Association at Dundee, in 1912: "There seems to be ample evidence now to justify us sketching the genealogy of man, and confidently drawing up his pedigree as far as Eocene times." I am tempted to try to tell you how the platyrrhine and catarrhine apes were separated, and how the Primates migrated from America to Europe, and to the East across the great land bridges, through the Oligocene and Miocene periods, but time will not permit. We have yet far to go before we leave the pre-historic ages. Professor Schlooser, in 1911, discovered in the Fayum of Egypt fossil remains of platyrrhine monkeys and small primitive anthropoid apes of the Oligocene period. It is curious to recall that in Egypt we see the first simian family dividing to become anthropoids, and it is in Egypt, as we shall see later, that man himself made perhaps the greatest advance in his evolution. In the Miocene are found several instances of the anthropoid apes in Europe, but at the end of the Pliocene period, that is with the beginnings of the first glacial epochs, they seem to have left Europe for the warmer climates which they have selected for their homes. It is now that we arrive at the appearance of man.

At various times from the middle of the last century, remarkable discoveries have been made of various types of Palæolithic and Neolithic men which, with the implements they have made and the remains of their art, together with the animals they hunted and killed, and such archæological discoveries, form a useful chain by which the ascent of man can be traced. The earliest evidence of the appearance of man has been proved to be at the beginning of Pleistocene time, stated by Professor Sollas, one of the greatest of living archæologists, to represent a period of 400,000 years. But certain flints, thought to be artificially fashioned and known as "Eoliths" have been found which date back to Oligocene times. This would give man a greater antiquity than has yet been established by his remains. Professor Arthur Keith gives these as 500,000 years, and he says: "It seems highly probable that man, as we know him now, took on his human characters near the beginning of the Pliocene period; the estimates at hand give an antiquity of 1,500,000 years." But here again he disagrees with the figures of Professor Sollas, because the latter gives the duration of the Pliocene as 900,000 years, and the Miocene as 1,800,000 years. Therefore, unless I misunderstand Professor Keith, he would seem to mean rather the beginning of the Miocene than the Pliocene. But for the purposes of this paper the point is unimportant, especially as we have no means of describing the evolution of his dentition.

Man then, or something very near him, now appears.

A creature known as "Pithecanthropus Erectus" was found by Dr. Eugene Dubois at Trinil, in Java, in 1891. There is a skull-cap, a premolar and two molar teeth. The skull-cap shows this animal to be of very low intellectual capacity, more simian than human, while the teeth are neither simian or human. The molars only have been described. They have divergent roots, the buccal ones being fused, and rounded crowns. Professor Bryce described them thus in a demonstration of the teeth of Prehistoric man at Glasgow in 1913. He says: "It is obvious that the tooth is already in process of reduction. We have here, in all probability to do with a form near to, but not on the direct line of human ascent. Professor Sollas, however, considers it should be included in what Mr. Humphreys calls "the limits of the human family," and says: "In the long ancestral series which extends upwards from the apes to man, he has mounted far more than half way and only a few steps of the long ascent remain to separate him from the species 'Homo sapiens,' essential man."

In lower Pleistocene gravel at Piltdown, near Fletching, in the Weald of Sussex, Mr. Charles Dawson and Dr. Smith Woodward discovered part of the cranial vault and the right half of the mandible of a degraded form of humanity, probably a female. This creature is called "Eanthropus Dawsoni," and is the earliest form of European man found. The mandible contains a second premolar and two molars, while a canine was afterwards unearthed, which resembles the deciduous canine of an ape. Mr. John Humphreys does not consider that this tooth projected much above the line of the other teeth. But its nature is such that in Professor Arthur Keith's restoration of the skull he seems to be justified in placing the canines farther above the line than in any other skull I have seen. He even gives the diastema between the upper lateral and the canine. The three teeth in the mandible certainly show that the premolars and molars were parallel, as in the apes, while there is no sign of genial tubercles.

The next early Pleistocene man was discovered by by Dr. Shoetensack in the river Mauer gravels, in the Valley of the Neckar near Heidelberg. This is the famous Heidelberg mandible. The bone itself is very massive, with a very shallow sigmoid notch and exceptionally wide ascending ramus. The bone behind the molars is tremendously thick for the insertion of the temporal muscles. It is remarkable that the teeth seem too small for the jaw, but they are essentially human, and the canines do not rise above the level of the other teeth. This, perhaps, gives us as good an instance as any of the teeth of prehistoric man resembling in their permanent dentition more the features of the deciduous teeth in modern man. This point, combined with that of the level canines in all other than Piltdown man, should be borne in mind. This would seem only natural, remembering the fact that these early specimens are in a state of transitional evolution, especially as regards the teeth, and there are ages of hundreds of thousands of years yet before we reach historic man. In the ape-like pit on the lingual surface of the mandible are found the beginnings of the genial tubercles, also by the more generous arching of the teeth to allow bigger movements of the tongue, it would seem that his dentition was already being adapted to more fluent speech. Piltdown man may have been exterminated by Heidelberg man and his kind, for from now on his race seems to have continued and flourished. It is generally supposed that he was the early type of a race known as the Neanderthal or Mousterian Cave-Men. There

is ample evidence of this in the large numbers of specimens that have been unearthed. The first was at Neanderthal, near Düsseldorf, in 1857.

Skulls of a youth were found at Le Moustier, and of an old man at La Chapelle-aux-Saints in France. Two skeletons were discovered with a mandible at Spy, Namur, and other remains at La Naulette in Belgium. An early instance was recovered by Lieutenant Thirf on the Gibraltar station, and by Dr. Kramberger, at Uropina in Austria. With so wide a range with its attendant evidence this type is probably th ebest known. He is certainly a step forward in the advance of evolution. With contemporary animals such as the bison, woolly rhinosceros, and mammoth, and the gradually improving types of implements, it is certain that they occupied the lower Pleistocene and lived through that ice-age from the first Glacial to the third Interglacial periods—a vast space of time. Charred bones show that they could kindle fire, and with the fact that they made hand-axes, it may be assumed that they broke up food for cooking. In fact, at Chapelle-aux-Saints the very fine skeleton had been interred, and actually with it had been buried the leg of a bison with the flesh on it, evidently meant as food in observance of some religious rite. A remarkable fact is that charred human bones have been found, which point to the practice of cannabalism among these people. The mandibles are massive and retain simian characteristics. There is lack of forehead, marked by enormously developed supercilliary ridges or frontal "fords" which, as might be expected, is accompanied by poor development of genial tubercles and lack of chin. But the mandibles of Mousterian as apart from Heidelberg are much wider between the condyles. The crowns of the teeth relative to the bone are small, with very large pulp chambers in Heidelberg, and still larger in Krapina, in both cases extending well below the alveolar margin. The canines are not above the normal line. A point to be noticed is that in Homo Mousteriensis Hanseri the cingulum development is most pronounced—in fact, laterals and canines have pointed tubercles, with ridges running from them to the summit of the crown, dividing the lingual surface. The canine in the Krapina mandible has the ridged formation very pronounced, and resembles the first premolar to a marked degree. I do not think the molars teach us very much as regards their form from an evolutionary point of view, but they show signs of a slight curve of Spee. Prof. Keith says: "Neanderthal man was not the Pleistocene ancestor of man, but represented a totally distinct branch of humanity, one which became extinct in Europe some time before the end of the Pleistocene period."

The words of Mr. John Humphreys are ominous: "The closing ages of the Pleistocene bring us with almost a shock into the presence of the Aurignicean and Magdalenian races of ancient hunters, who inhabited Europe south of the great ice-sheet, which then enveloped much of the continent." Here is a much higher type, living under altogether better conditions. To digress for a moment, how closely it brings home the truth of the immortal Darwin's dictum: "The variations are supposed to be extremely slight, but of the most diversified nature; they are not supposed all to appear simultaneously, but often after long intervals of time; nor are they all supposed to endure for equal periods. Only those variations which are in some way profitable will be preserved or naturally selected. And here the importance of the principle of benefit derived from divergence of character comes in." How well in this case we are shown that in the divergence of the species they branch off "after long intervals of time." The most usefully selected drive on, the others standing off to end the chapter of their failure. So in these upper Pleistocene men we have the link that binds us to our ancestry. They are known as the Crô-Magnon race from a discovery there in 1868.

A specimen of a woman and a youth were found in the Grimaldi caves at Mentone, and a later type in the same cave in a higher stratum. Specimens came to light at La Madeline, and also in Spain. Their average height has been estimated to be six feet, and they had a magnificent physique. Mr. Montague Hopson says they resemble the Sikhs of Northern India. This may be so since they apparently spread across to Europe from the East. The jaws and teeth of the Grimaldi race are negroid in character, with an edge to edge bite.

In the Crô-Magnon specimen the simian characters at last disapprear. The chin is developed and the teeth are modern in appearance. This race is chiefly remarkable for its art, which takes us through the Solutrean and Magdalenian periods. They could paint and carve, and their representations of contemporary animals are most life-like. One I noticed especially of an ox is even shaded in. It is possible that they may have domesticated animals for their use. Professor Charles Darwin, in speaking of artificial selection says: "This only throws far backwards the history of civilisation, and shows that animals were domesticated at a much earlier period than has hitherto been supposed." And again: "We know that at the present day there is hardly a tribe so barbarous as not to have domesticated at least the dog."

Then lastly is Neolithic man. Two undoubted proofs of his existence were found in England. The skeleton of a woman was discovered in Essex and another of a man at Tilbury Docks. But there is a large field, The Saiads of Upper Egypt, the Aztecs, Incas and various Semetic remains may be all included. Prognathism has disappeared, there is an ample forehead and a pronounced chin. The teeth are in every way human with the fully developed curve of Spee.

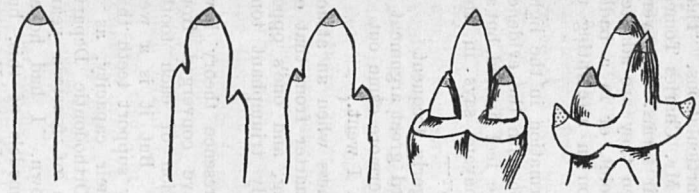
In crowding a record such as this into so comparatively short a space an impression of brevity may be created. But I would ask you to bear in mind that the processes of evolution are stupendously slow, and the forces at work more powerful than the mind can easily conceive. When a "rapid change" is spoken of in evolution it means a period of some simple thousands of years, or even scores of thousands, instead of hundreds of thousands. This may be imagined to some degree when it is stated that the geological measures have been estimated to be fourteen miles thick. Even so comparatively recent yet so ancient an age as the one we deal with is only 200 feet below the surface, yet it represents a period of at least 500,000 years. The measures, of course, are not loose earth, but heavy rock. There is a beautiful series of photographs in the Neolithic and Palæolithic collections in the British Museum that emphasises this. It has no doubt occurred to those of you who have looked

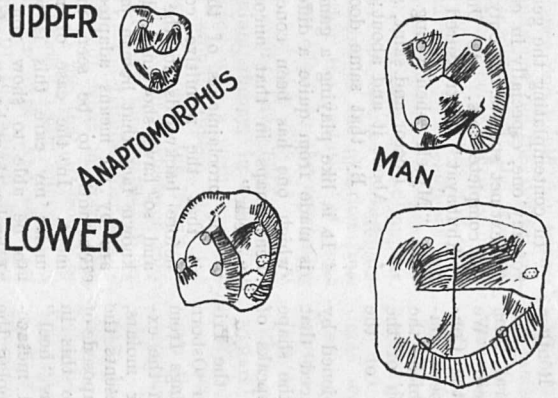
- CAINOZOIC
  - HOLOCENE
  - PLEISTOCENE — 500,000
  - PLIOCENE
  - MIOCENE — 900,000
  - OLIGOCENE — 1,800,000
  - EOCENE
- MESOZOIC
  - CRETACEOUS
  - JURASSIC
  - TRIASSIC

Palaeozoic

Eozoic

- HOLOCENE
  - HISTORIC
  - IRON
  - BRONZE
  - NEOLITHIC
- PLEISTOCENE
  - UPPER
    - AZILIAN
    - MAGDALENIAN
    - SOLUTRÉAN — 4th INT: GL:
    - AURIGNACIAN 4th GL:
  - PALAEOLITHIC
    - MOUSTERIAN — 3rd INT: GL: 3rd GL:
    - ACHEULIAN 2nd INT: GL:
    - CHELLEAN 2nd GL:
    - STREPYAN 1st INT: GL:
    - ANGLIAN 1st GL:
  - LOWER





upon that glorious notebook of the historic past, the Forum at Rome. Therefore the teeth are of the greatest importance in studying evolution, for however fossils may be formed the teeth, for the very reason that they are the hardest calcified structures in the human body preserve in every detail their original structure. And not only the exterior aspect of them, but the pulp chambers and root canals have been clearly demonstrated by means of Röntgen Rays.

We have now to consider how the general form of the human dentition has been evolved. We have three great basic theories. There is the Concresence theory of Ameghino, which has been elaborated by Kükenthal and Röse, by which the cusped teeth have been formed by the union of the primitive cones which form the dentition of the reptiles.

Then there is the cingulum theory championed by Dr. Marrett Tima, from which it is deduced that cusps arise from the cingulum and modify the shape of the primitive cone. Professor Osborn speaks of the cingulum as "The mother of cusps."

Then lastly comes that elaborate doctrine the Tritubercular theory, worked out by Professor Osborn and others. I have taken one or two drawings from Prof. Osborn's diagram in order to aid us in the explanation. In this we have, in the upper molars, the primitive triangle or trigon, which represents the essential elements of the tooth. It is composed of the protocone, paracone, and metacone. To this in course of time has been added the talon or "heel" made up of the hypocone, protoconule and metaconule. In the present four-cusped upper molar the protocone is antero-internal, while the paracone and metacone are antero and postero external respectively, the hypocone being postero-internal. The protoconule and metaconule have been lost.

In the lower molars the trigon has the protoconid, the paraconid and metaconid—the suffix "id" being added to differentiate between the upper and lower. The talon comprises the hypoconid, entaconid and —hypoconulid. In the modern lower molar the paraconid is lost, and so we have five cusps. Of these the protoconid is antero-external, the metaconid antero-internal—a reversed condition of affairs—and the hypoconid is postero-external. Add to these a postero-internal entaconid, and an intermediate cusp the hypoconulid, and the description is complete, although I shall attach no great importance to it in the remarks to follow. Before, however, I leave the description it might be explained that the trigon is the tearing element of the tooth, according to this theory, and the talon the crushing organ. The cusps of the trigon are imagined to be arranged in series, and have afterwards moved round as it were.

The cheek teeth of the common Greenland seal, which have a simple serial form of cusps, the teeth interdigitating in articulation, give a practical illustration of this trigon theory. If you bear them in mind, it may easily be imagined how the addition of a heel would necessitate some re-arrangement of form. Perhaps, in enumerating the theories, that of Professor Cope's "kinetogenesis" should be mentioned. I do not say this in any disrespectful way, for indeed it is a very ingenious theory, and if it seems to be touched on somewhat lightly, it is because it is so highly theoretical as to be unable to prove its evidence in the trial of facts and practice. By its means it is sought to show that the molar teeth are moulded by the pressure of their articulations. "That the teeth, so to speak," to quote Mr. Charles Tomes, 'are drawn or squeezed into their forms." In very much the same way do bones when they are adapted to a ball-and-socket or hinged joint, or in a badly manipulated fracture or dislocation in attempting to form a new joint.

In contemplating the general formation in the light of any one, especially in connection with the evidence of extinct species, not only does one feel limited, but at a complete loss. As Omah Khayam says in the "Rhubayat" of treasured memory:—

> "Myself when young did eagerly frequent
> Doctor and saint, and heard great argument
> About it and about; but evermore came out
> By that same door as in I went."

It is like playing a game of chess when an attack is made from quite a different quarter from that on which one has been concentrating, and one's opponent snaps in that uncomfortably triumphant tone "check!"

The proclaimants of the concresence theory have it that the primitive cones have converged from before backwards in the formation of each tooth, and so have shortened the jaw. But it is a well known fact that human jaws may support teeth that are by no means adapted to their capacity, as is constantly to be seen in the Orthodontic Department. In the case of a cretin of fourteen years under my care this is well known. I had hoped to be able to show you some models of this, but I broke them by an unfortunate accident. However, what is left of them I think show quite clearly the overcrowding, the normal condition of the teeth and the small jaws. The mandible is very poorly developed. It is slender and seems to yield on pressure. The angle is very poor, and the condyles consequently approximate to the horizontal ramus.

If we survey the animal kingdom as a whole it does not occur with any particular force that the modification of the teeth has had any direct bearing on the condition of the jaws. To take the carnivora as an example. In the dogs the jaws are long and the teeth interspaced. In the cats the jaws are short, and the teeth much more highly specialised. How are we to argue from this? Are the teeth of the canidæ and the archtoidea merely modifications of the primitive haplodont dentition? Or has each tooth been developed by concresence? The concresence theory would seem to support the evolution of the felidæ, but not of the canidæ. More puzzling than this is the evolution of jaws which lose teeth. According to Palæontological evidence marsupial forms appeared before reptiles were differentiated into snakes. The marsupials are an ancient and undisturbed stock who have fended for themselves in a most remarkable manner. Yet the kangaroo has a muzzle with a dicestema, and the thylacine a muzzle with teeth like a dog. Echidna, of the most ancient of them all, has no teeth. He is an ant-eater, and like all ant-eaters has tremendously long jaws. The jaws of snakes shorten as they become more specialised, but they lose their teeth. Sphenodon is exceedingly ancient, and coalescence takes place in his individual life time, as shall be shown, and yet nothing seems to happen to his premaxilla. Of man it can undoubtedly be

said that his jaws have shortened, but if his history be traced back to Palæolithic man, it would seem that the shortening of the jaw has taken place through the lose of alveolar bone rather than a shortening of the true jaw, while his teeth have become quite specialised. I am aware, of course, that in prognathous man the teeth are already specialised, but if the direct shortening of jaws took place as a law by concrescence one would not expect to see them having the influence on the destruction of teeth that they have. I submit that the jaws are essentially the important factor, being specially modified to the mode of obtaining food, while the teeth are "accessories after the fact"—an adjunct entirely dependent upon the use to which the jaws are put. If the teeth are not necessary they disappear, and the jaws may or may not shorten accordingly. But it would not seem, looking at the question from a general point of view that the evolution of teeth by concrescence has had any effect on the shortening of the jaws.

The canine tooth itself might have been selected for the gift of the cingulum theory, in so far as its cingulum is so pronounced with a well developed cusp above it. And it would appear that the stout and powerful molar has been the result of much labour on the part of Nature, whatever may be the result of this dance of the cusps. When thinking over the problem of the tritubercular theory and the molars in the light of what my own eyes had shown me it occurred to me that it would be interesting to observe how molar teeth appeared in earlier forms of life than our own. And so I set out to examine fossil teeth of the animal kingdom generally, and quite soon I found some typical specimens to describe to the Society. Among the Perissodactyle Angulata of the Upper Eocene there lived a creature "Palæotherium Crassum"—a kind of rhinoceros. He has cheek teeth with a definite cingulum, with crescentric cusps arising serially from them. This animal appears to be in the process of specialising a rhinoceros dentition. Then among the Artiodactyle Angulata of the early Oligocene is "Brachyodus Fraasi." He shows a delightfully transitional stage of specialisation of cheek teeth. The cingulum entirely surrounds a kind of island of pointed looking cusps. They start with two. Then there are four with a postero-external oblique ridge joining the cingulum, which in the next tooth rises into a cusp. Sharp-pointed cusps crop up from the cingulum everywhere in a most surprising manner. It is, I think, an early deer.

Among the Carnivora of the Pleistocene period is "Ursus Spelæus." His molars are composed of a mass of many-shaped tubercular cusps entirely surrounded by cingulum. In the same period we see similar many-cusped in "Ælureidophus Baconi," showing early signs of carnassial development. The lemurs, as has been said, appear in the Eocene, and in "Adapis Magna," although the tritubercular pattern may be said to be fairly distinct, his cheek teeth could be argued to show a possibility of being formed by concrescence by reason of the definite, separate shape of each of the cusps. All these animals belong to Cainozoic time, by which it may be said that their teeth are certainly specialised, and yet they do not show that they have been evolved according to the tritubercular theory more than by any other. Take the models of the girl of 15. The impression is not good I fear, and my brother, Mr. Harold Edney, who very kindly volunteered to cast them for me was unfortunate in getting a number of "air blows" in the plaster. But I am well content with that, for by the nature of the pointed cusps on the molars one would expect, if air were present, for it to rest there. Perhaps you may be able to notice that she has accessory cusps appearing in several situations on all the teeth. I remember a man who had two distinct cusps on the lingual aspect of his left lower first molar—one on the trigon, and one overlapping the trigon on to the talon. You will see a unique example of cusp formation on the molars in the girl of 16. She has what appears to be almost a new tooth formation on the hypocone of the upper right second permanent molar. In the apes and ancient man we certainly have a distinct tritubercular pattern, but as far as the human specimens are concerned they are very few compared with the numbers of their race. But as the exhibits and numerous other instances can show in present-day man the molars may have many additional cusps which do not follow trituberculy. At the same time I am not attempting to assert that the advocates of any one theory in particular think that that theory has brought about the human dentition as a whole. Nor do I think that they are trying to claim that it has, because that reasoning would be obviously unsound, because it does not appear to me that there can be or ever could be a set artificial rule for the evolution of such transitory structures as the teeth.

It is now my purpose, after examination and consideration to draw up a general idea of the formation of our dentition. In the late Palæozoic, and during the Mesozoic periods we find the reptiles appearing long before man, and it is laid down that when teeth became necessary to life the primitive haplodont dentition was the precursor of all dentitions. If we start with the incisors and canines, how have they been evolved It might be said that they are modifications of the cone. But I think a very suitable answer to that is to be found in the pre-maxillary teeth of "Sphenodon Punctatus," originally described by Dr. Günther. It is the only living survivor of a very ancient group of reptiles, the "Rhynchocephalia." In the paper written on this animal by Mr. W. A. Maggs and Mr. J. Lewin Payne they say, "One fact of interest . . . is that as time goes on the pre-maxillary teeth appear to become confluent at their bases by intimate fusion with the bone." The next passage is most important: "The three cones appear as a single broad, smooth tooth, which is flattened in the antero-posterior direction and notched at the cutting edge." This notching they hold to be due to wear, but state that Mr. Spencer Harrison ascribes it to the loss of the middle teeth, particularly in the lower jaw. However this may be, here is direct proof of a form of concrescence of cones to form a tooth, which can easily be applied to the incisors and canines at least without the necessity for much more modification. Then with regard to the stouter teeth, this might apply as well with the help of the cingulum. It is difficult to get away from the cingulum theory. So many primitive fossils show it in a state of high development, as has been mentioned before. As far as the cheek teeth are concerned that cusp formation may arise from the cingulum is beautifully illustrated in the insectivora, particularly in

the case of such of them as the hedge-hog, with a definite cingulum from which arise the sharp-pointed cusps. Dr. Kükenthal holds the view that molars are fused by the coalescence of two successive series of cones. Although Dr. Marrett Tims does not agree with this, he upholds the view that two teeth have merged antero-posteriorly. It would be interesting to know why Dr. Tims confines himself to two primitive cones in the case of a molar.

Before I leave this point of the coalescence of primitive cones in the formation of all the teeth, I should like to bring to your notice a splendid instance of a primitive cone appearing to arise in a premolar. This model was kindly lent to me by my friend Mr. Fouraker. It would appear as though the whole of the main cusp of the buccal aspect of the tooth is formed around the accessory cusp. Through the kindness of my friend Mr. Stuart Smith I am able to show you a very good example of conical cusps arising on the palatal surface of incisors. This was taken from one of his private patients, and he assures me, that in his very wide experience these instances are common. But the finest example is that of the incisor with the distinctly pointed cone arising on the palatal aspect. This was given to me by my friend Mr. C. A. Wakeford, who, happening on the case, and knowing I was interested in this question, was so kind as to make a model of it. After a thorough examination of the tooth itself he tells me he is convinced that it can have no other origin than the cingulum, and without any use of imagination the possibilities of fusion must be apparent, and, it is to be remarked, in this, as well as in the excellent example by Mr. Smith, it seems clear that the primitive cone will arise in any situation, and is as likely to fuse postero-anteriorly as well as in a meso-distally direction or vice versa. I am very indebted to Mr. Wakeford for the trouble he has taken, because it puts the strongest case I can lay before you, and one that is difficult of refutation.

An attempt has been made to state that tooth germs actually coalesce in the process of development, but it is argued that this may be a sub-division of the one germ, in the histological sections that have been examined. Mr. Maggs and Mr. Payne do not mention this aspect of the subject in their paper, nor do they state how they think the pre-maxillary teeth "become confluent at their bases." Their observation "by intimate fusion with the bone" does not seem to explain the process very clearly. But the theory that the teeth may fuse in their development, although it must be realised how difficult of investigation it is, is well worthy of consideration in my opinion. The belief that the cingulum may have been evolved through pressure causing a kind of buckling of the tooth is as difficult to believe as "kinetogenesis." The teeth are essentially an exceedingly hard structure, and any moulding must take place when the tissues are in a plastic condition. This they never are. It might be said that dentine is an elastic tissue, but this is covered by enamel which is by no means elastic. This is clearly pointed out by Mr. Charles Tomes. In any case the teeth are in an advanced stage of calcification in the crypts, and when erupted have crowns entirely covered by enamel.

If you will look at the series of drawings so admirably arranged by Professor Osborn, a very clear conception can be formed of the arrangements of molars. The cone with its accessory cusps drawn from fossils of Dromotherium and Microconodon. In Spalacotherium and cingulum, you observe, arrives. Either the cusps arise from it, or, as it would appear from the series, the cingulum is formed around the bases of the cusps. In Amphitherium we have somewhat the finished product. This figure, I am aware, is intended to demonstrate the tritubercular theory, but I submit it to you in this way to show how cusps may crop up in the specialisation of the molar, whether the body of the tooth be formed by concrescence or not, or the cusps have a special process of arrangement. Anaptomorphus, ancestor of man from the same diagram, shows an upper molar with a V-shaped arrangement of cusps, while six cusps are present in the lower. Here is the trigon, with its cusps, and the talon. But anaptomorphus existed on an insectivorous diet—its V-shaped upper molar certainly coincides with some insectivora, e.g., the golden mole. Here again the cingulum with its bristling cusps is brought to mind.

In my view there is abundant evidence of, quite definitely, the haphazard formation of cusps in the complex teeth, and even of concresence in the simpler forms in modern man. In some cases I have been so impressed as to be able to disregard almost the tritubercular theory of molars. In the deciduous incisors we see definitely cremated edges. I have a case in mind of a permanent upper left lateral incisor showing this condition. I have observed this persistence of primitive cones in a seemingly unordered way for some time, and it has given me to think. You have all doubtless observed many instances of your own. Even in Palæolithic man there is an excellent instance, in Homo Mousterieusis Hauseri. The lateral incisors and canines show distinct pointed cusps on the palatal aspect—the canines being very similar to the premolars in fact. while the cusps of the molars all show the pointed form beautifully.

So to summarise, with a limited knowledge and experience, I am brought to think that the teeth of man are separately formed by concrescence of primitive cones. I cannot say how the cingulum is developed, but that it functions for the purpose of higher specialisation of the teeth seems certain. The canine, to be spoken of later, shows that in man it is capable of producing cusps in a similar manner, and the purely concrescent theory seems an easier formation for that tooth than the molars, because it shows obvious transitional form. The tritubercular theory gives us a strong case for retention of a definite number of main cusps in a consistent formation, but it seems difficult to say quite how. Does the atrophying third molar explain it in any way? I cannot express an opinion. But I am content, with the evidence that the cingulum is present in deciduous molars, and that cusps will arise in quite an "irresponsible" way in permanent ones, to think that the molar is a tooth with a concrete body, a cingulum from which cusps arise to obliterate it, and that they are present, in more or less consistent numbers to serve their purpose accordingly to the laws of evolution. And to conclude this section, the jaws and teeth have very little bearing on one another as to size and shape for all ordinary purposes.

(To be continued.)

Sport.

The Swimming Club : Its History and Successes.

IN May of this year the Swimming Club will have been in existence for a third of a century, and it is therefore an appropriate time for a short review of the Club's career to make its appearance.

The club owes its origin, and the greater part of its successes, to the enthusiam and activities of its President, Sir Alfred Fripp, and, although the time is not far off when he will be leaving the Hospital, it is hoped that he will accept the office of President for life, in order that his connection may not be severed with an institution which he brought into being and has, in the main, built up, and with which his name will always be associated.

At a meeting held in the old Long Room, on 28th May, 1891, and convened by him, Mr. A. D. Fripp took the chair, and was unanimously elected President of the Club, an office which he has held without a break for thirty-three years. There have been times, especially after the war years, when sports clubs have fallen on lean days, but our President has invariably imbued others with his own enthusiasm, and kept the Swimming Club alive as a vital and active force.

At the first meeting it was decided that the Club was not in a position to enter the Union, but recently formed, and members were called upon to subscribe two shillings and sixpence towards expenses. The original committee consisted of Scott, Brereton, Spon, Cooper, Collins, and Allport, the last-named well known in the worlds of Rugby and Water Polo, and to us for his happy speeches at one of our club dinners.

In the following year the Club commenced its activities in earnest, playing home matches at the old Whitechapel Baths in Aldgate on Tuesdays and Fridays. In the same year a subscription list was opened for a United Hospitals' Water Polo Cup, and the United Swimming Club was formed.

At the second Annual General Meeting, held in May, 1893, everybody was very pleased with the rapid progress which had been made, but in the following year there was a good deal of complaining that enthusiasm was confined to the Committee and Officials.

Thirty members attended the meeting in 1895, when Dr. J. Fawcett was elected second Vice-President, with A. H. Tubby, and the Club was affiliated to the Clubs' Union, and to the S.C.A.S.A. The Hospital Polo Cup was wrested from Thomas's, since when the Club has won it fourteen times. The President called for a Hospital Gala, and suggested the formation of an "A" side. The stalwart in those days was A. G. Styer, who scored thirty-four goals of the Club's eighty during the season. The Gala was held at the Bath Club, where U.C.H. was beaten for the Cup by eleven goals to nil. Wood, Graham, Marshall, and Lewin Payne appeared in the team as great "goal getters."

In 1897 Mr. Dunn was elected a Vice-President; Styer, Captain; G. Marshall, Vice-Captain; and C. B. Sells, Hon. Secretary and Treasurer. In view of the worrying and careful planning before last year's cup tie with "Bart.'s" it is amusing to find the same thing happening in 1897, when, "by careful marking," Guy's won by a comfortable margin of six goals to nil. Graham Marshall was the hero of this match.

There is a very amusing sketch in the GAZETTE of this time, depicting a match being played under difficulties in the shape of sharks, one cheerful player having escaped the sharks is engaged in scoring a goal by the simple method of punching the goalkeeper on the nose with one hand and shooting with the other! From the expression on that hero's face one imagines that the picture was drawn by the goalkeeper!

In 1898 the Duchess of Portland presented the prizes at the Bath Club, after Guy's had beaten "Bart.'s" in a match which consisted chiefly of "fouls"! Later in the evening the President won a two lengths' race against the late captain of the "Bart.'s" team.

"Bart.'s" again won the Cup in 1899, and held it until 1901. In 1900 the Club entered for the Surrey County Junior Championship, but owing to a heavy fixture list had to withdraw eventually. The Inter-Hospital Team Race was started in 1902, and in this year W. R. Wood was elected a Vice-President and T. B. Layton joined the Committee.

In 1905 the Club beat "Bart.'s" by four goals to one, and, thanks to the wonderful

goalkeeping of H. N. Eccles, eventually held the Cup jointly with Thomas's. The semi-final of the Team Race was lost to the London by a touch, by Eccles, Dicks, Millon, and T. B. Layton.

With Eccles and Seymour Price as Captains in 1906, Thomas's were beaten (6—2) and "Bart.'s" in a re-play after a draw, by six goals to one. In 1907 the London was beaten (5—1) and "Bart.'s" (7—1). Twenty-three goals were scored against three in Cup Tie matches. Messrs. Fagge, Rowlands, Lewin Payne, and Graham Marshall were elected Vice-Presidents.

A very successful Gala was held at Lavington Street in June, 1908, when Lady Constance Stewart-Richardson and Miss Lewin, then Lady Champion Diver of the World, gave a wonderful display. A Polo Match, "Past v. Present," was won by "Past" (5—4), and the Hospitals Cup was won from Thomas's by eleven goals to nil.

The Galas of 1909, 1910, and 1911 were remarkably successful, the Cup being won on each occasion, and the proceedings being enlivened by the "Guy's Hospital String Band."

In 1911 all Inter-Hospital Handicaps and Championships were won by Guy's. Moore and Seymour Price laid the foundations of these successful years by their hard work and enthusiasm.

The Cup was lost to the London in 1912 and 1913, but was regained in the summer of 1914, under the captaincy of C. H. Laver.

During the War years, of course, the Club was inactive, but, recommencing its activities in 1919, all the Cups were again collected, and, with the exception of the Diving Cup in 1922, have been held ever since.

Through the kindness of the Committee of the Bath Club the United Hospitals Annual Gala has been held there since the war, and has been a most enjoyable and entertaining evening on each occasion, unrivalled even by the Galas of those days when the "Hospital String Band" was in its zenith.

The record of the Club's successes is a splendid one, but we cannot hope to keep it so without the co-operation and enthusiastic support of all swimmers in the Hospital. Water Polo is a hard and exacting game, but it is a fine one, and there is every opportunity for the novice to become proficient.

It must not be thought, however, that Water Polo alone is encouraged. On the contrary, we wish, during the approaching summer, to see people practising diving and the more difficult strokes, so that they may become really efficient and expert swimmers.

In 1923 Lord Desborough honoured the Club by consenting to become one of its Vice-Presidents.

The Club offers its congratulations to Sir Alfred Fripp, its Founder, on the attainment of its thirty-third birthday.

Guy's Hospital Golfing Society.

WITH the arrival of Spring arrives also the opening of the Golf Season, and this year the Golfing Society is in a more fortunate position, both as regards members and courses over which they can play than at any time since the war. Several new members have joined the Society and the Hospital can now boast of having a greater number of low handicap men than any of the other hospitals.

Guy's won the Inter-Hospital Golf Cup in 1920 and 1921; St. Thomas' are the holders at the present time.

Certain concessions have been made to the Society by the West Kent and Foxgrove Golf Clubs, so that Hospital men can now play golf over these two courses regularly on very advantageous terms. Both these courses are in admirable condition for the time of year, and during the next few months they should go on improving steadily.

Dr. Cameron, President of the Society, has very generously given £5 to the Society to provide prizes for any competition that may be held; on the strength of this the Committee has arranged a number of competitions, four in all, open to all members, the prizes being provided with the money. The competitions have been made as attractive as possible, and are such that the long handicap player has just as good an opportunity of winning a prize as the scratch man. The day for these competitions has not yet been definitely fixed, but it will be sometime in May.

A trial match was played last month, the result of which was as follows:—

Team A.				Team B.	
L. W. Cann...	0	v.	J. L. Glover ...		1
D. G. Bown	1	v.	E. J. Pye Smith		0
J. H. Anderson	0	v.	J. A. Vernon ...		1
J. H. Anderson	1	v.	L. J. Barford ..		0
S. W. Gathergood ...	½	v.	I. A. Jackson ...		½
M. E. M. Jago	1	v.	C. L. Worthington		0
	3½				2½

The Monthly Medal results have been as follows:—

January winner, E. J. Pye-Smith.
February winner, J. P. Evans.
March winner, J. A. Vernon.

By the time this number of the GAZETTE is issued the match fixed for April 9th against West Kent Golf Club will have been played. The April Medal will also have been played for.

Other fixtures are:—

May 7.—Monthly Medal Competition.
May —.—Spring Meeting for Dr. Cameron's Prize.
May —.—Staff v. Students at Broxbourne.

May 25.—Match v. Broxbourne G.C. at Broxbourne.
June 1.—Match v. Shirley Park G.C. at Shirley Park.
June 4.—Monthly Medal Competition.
Details of all competitions and other fixtures will be found on the Notice Board in the Colonnade.

Anyone wishing to play golf, who is not already a Member of the Hospital Golfing Society should see either the Honorary Secretary or the Captain before going to West Kent or Foxgrove to play.

Reviews, Hospital Information, etc.

Man's Mental Evolution, Past and Future. By HARRY CAMPBELL, M.D. Crown 8vo., v.+74 pp. Published by Baillière, Tindall & Cox. *Price* 3*s.* 6*d.*

WHAT is the right attitude of mind one should have when taking up such a book as this for the first time? One should first know, I take it, by what paths the author proposes to lead us before we can arrive at the mountain-top of his narrative; and then we must consider just how much will the *journey be worth the fatigue.*

Dr. Harry Campbell is on the whole well acquainted with the topography of the route along which he proposes to take us, and, although our way deviates and side-tracks at times, we are shown many interesting places, not easily to be forgotten. We can say then, that the journey is certainly to be undertaken.

Our guide proposes "to indicate the factors which have determined man's mental evolution, from the first appearance of man on this planet." He begins by remarking that our remotest ancestor was a one-celled organism whose progeny, appearing at intervals of millions of years in the various guises of Trilobite, Fish, Amphibian, Reptile, and Lemur, has ultimately revealed itself to be none other than that miserable creature—Man! Why, it may be asked, was a series of such biological impersonations necessary? The truth is, the earth "isn't what it used to be"; it has undergone throughout the ages many and widespread changes, both as regards its crust and vegetation; and it is in conformity with these changes that living-matter has adapted itself in the various morphological modes with which we are now familiar.

Exactly how living-matter does manage to adapt itself to its environments is not known (for the secret of that is the secret of Life itself). Nevertheless, in scientific language it has been accomplished "by the selections of variations *having survival value.*" Thus the cervical vertebræ of a giraffe may be said to have survival value, since they have enabled that animal to persist. And so it happened that among these variations came a greatly increased Intelligence, notably in the Terrestial Large Ape whose shift of habitation from up among the trees to the ground gave him a much wider scope for exercising his intelligence.

"The three chief factors which increased the survival value of intelligence after the pre-human left the forest to become a hunter, and which continued to operate right up to the time when full humanhood was attained were:

1. A hunting career.
2. Polygamy.
3. Inter-tribal warfare."

Hunting called forth a greater amount of skill than was needed for "the mere culling of a sessile fruit," and "the first employment of a stone or the branch of a tree as a hunting weapon was a momentous event in man's mental evolution, for it led to the fashioning of many kinds of weapons and implements, and so ultimately to all mechanical aptitude."

Polygamy had increased the survival value of intelligence because, whereas under primitive conditions the chances of matrimony (from the male point of view) depended upon one's biceps and the ability to emulate the "rough-stuff" cinema star, it became necessary in more pre-human conditions to be possessed of mental personality (or as I think Sir James Barrie would say, "charm").

Intertribal warfare very naturally provoked survival value of intelligence since war, no longer symbolised by a tiger devouring its victim in a frenzy of blood lust, had now become a matter of stratagem and guile; whilst victory was to the side most ably led and possessed of the most telling weapons.

We have hitherto used the word "intelligence" as a broad inclusive term, but intelligence really consists of "feeling," which includes both the sensations and emotions. Nor, it appears, is there any vital difference between feeling and thought.

"Am I wrong in describing thinking as a kind of nimble interplay of the more intellectual sensations—those which, like the visual, auditory, and tactile sensations, are easily discriminated and remembered?"

What of the future of man's mind? Is it to be "Back to Methuselah?"

University of London

Board to Promote the Extension of University Teaching.

A COURSE of Lectures on "Medical Hydrology," supplemented by Demonstrations and Clinical Lectures at a British Spa, has been arranged by the Board in co-operation with the Committee for the Study of Medical Hydrology in Great Britain. The Course will commence on Tuesday, May 6th, and end on Friday, May 9th, 1924. The University will grant a Certificate of Attendance to those who have attended both the Lectures and Demonstrations.

To be delivered at the University of London, South Kensington, unless otherwise stated.

Tuesday, May 6th.—

10 a.m.—By R. FORTESCUE FOX, M.D., M.R.C.P., F.R.Met.S.

INTRODUCTORY LECTURE* on *The Properties and Actions of Medicinal Waters.* Medical Hydrology, a science with many aspects.

The origin of waters. Their chemical and physical properties. Their classification. The question of dosage. Solvent and eliminant actions. Specific actions. Illustrations of these actions in the treatment of chronic disease.

11.30 a.m.—By Professor M. S. PEMBREY, M.D., F.R.S.

The Regulation of Temperature in Health and Disease. Introduction. Temperature of Man in Health. Influence of various factors—age, sleep, work, food, external temperature, etc. Development of the Power of Regulation. Production of Heat. Loss of Heat. Disordered Regulation of Temperature. Effects of extreme heat or cold. Lesions of the Nervous System. Action of Drugs. Action of Micro-organisms. Fever.

(To be followed by a discussion with special reference to Hydrology.)

2 p.m.—By S. JUDD LEWIS, D.Sc., F.I.C.

The Chemical and Physical Investigation of Waters, illustrated by slides, photographs, etc. Chemical and Spectrographic Analysis of Waters; the significance of small quantities to medicine and public health. Physical properties of waters; ionisation, electrical conductivity, osmotic properties. Colloids in water, grades of particles, protective colloids and their bearing on medicinal uses.

Wednesday, May 7th.—

10 a.m.—By R. FORTESCUE FOX, M.D.,M.R.C.P.,

The Actions and Uses of Baths.—The principles of external or surface treatment. Water as a vehicle of energy. The range of temperature in baths. The action of different degrees of heat, on the Circulation, Nervous Centres, Metabolism, etc. Thermal Debility and Heat-stroke. Chemical and mechanical factors. Stimulant and sedative baths. "Cooling hydrotherapy" in acute diseases. The action of different kinds of baths—Water, Vapour, Peat, Muds, Douches, Pools, etc.—in chronic diseases.

11.30 a.m.—By DAVID BROWN, M.D.

The Pharmacology of Natural Medicinal Waters. Classification by principal constituents, indeterminate waters, rare constituents. Pharmacology of main mineral constituents, a mixed result. Other factors to be taken into consideration. Classification by therapeutic action. Possible modes of action; oxidative, eliminative, diuretic, etc. Pharmacological experiments at various spas and results obtained. Clinical methods of application.

2 p.m.—By CHARLES W. BUCKLEY, M.D., M.R.C.P.

*The British Spas, their Waters and Methods of Treatment.**—The British Group of Spas, the types of mineral waters represented and their special characteristics. Internal administration of waters, the effects produced and the diseases in which they are indicated. External methods—immersion baths, the douche-massage, other forms of douche, peat and mud baths, peat and other packs, effervescent baths with natural or mechanical effervescence, whirlpool and contrast baths. The methods of intestinal lavage, throat and nasal sprays and inhalation. Typical conditions for which each form of treatment is indicated.

(N.B.—The place of meeting for this Lecture will be announced later.)

Thursday, May 8th.—

9.45 a.m.—By G. L. KERR PRINGLE, M.D.

Spa Treatment of the Rheumatic Group of Diseases.—Diseases included. The Ministry of Health's classification. Spa treatment. Associated conditions, climate, exercise, diet, social surroundings, etc. Psychological effects. Internal effects, elimination, diuresis, purgation. External treatment, natural baths, sulphur, brine, peat, steam, paraffin wax, mechanical baths, douches, aëration, whirlpool, massage. Intestinal lavage. The methods employed in the various forms of rheumatic disease.

11 a.m.—By W. BERTRAM WATSON, M.D.

The Treatment of some Common Skin Diseases by Baths and Waters.—General Principles. Clinical Groups suitable for Spa Treatment. Constitutional Treatment. Local Treatment. The Time Factor. Choice of Spa. Climatic Conditions, etc., etc.

*Open to all members of the medical profession.

STUDY TOUR TO A BRITISH SPA.

Thursday, May 8th.—

1 p.m. The party will leave Paddington (slip-carriage, luncheon train), arriving BATH 2.45 p.m.
3.30 p.m. Demonstration of Balneological Methods.
5 p.m. Tea in the Pump Room.
7.30 p.m. Dinner.

Friday, May 9th.—

10 a.m. Royal Mineral Water Hospital: Clinical Demonstration on Rheumatic Diseases and their Treatment.
2.30 p.m. Demonstration of Physical Methods of Treatment.
5 p.m. Tea at the Royal Mineral Water Hospital.
6.22 p.m. Leave Bath, restaurant car, arriving Paddington 8.45 p.m.

APPLICATION FORMS, FEES, ETC.

Those who wish to take part in the Course will kindly send in their names, with fee of TWO AND A HALF GUINEAS for the Course, *at latest by Friday, May 2nd.*

The medical men at Bath have kindly agreed to provide hospitality for all practitioners and students attending this Course.

All communications with reference to the Course should be addressed to the Hon. Secretaries, Committee for Study of Hydrology, c/o University Extension Department of University of London, South Kensington, S.W.7.

Change of Address.

F. R. Hogbin, L.D.S., R.C.S.Eng., 27, Oakfield Road, Clifton, Bristol.

J. Pollard, Bathurst, Gambia, W. Africa.

Birth.

HANCOCK.—On Easter morning, at Bexley, Kent, to Vera Primrose, wife of Dr. Allen Coulter Hancock, M.C., a daughter.

ED.—C. H. C. T.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *May 10th, 1924.* *Number 935*

PASSIM

A GREAT many years ago when we still looked forward to the life of an engine-driver rather than that of an editor and could find no joy in quill-driving to compare with that of engine-driving, we were a child of an impassive countenance. Our nursemaid would often remark that we were stubborn, and even our parents were convinced that we had no soul. Not the smallest ripple of expression was ever seen to cross the monotonous Sahara of our face; Peter Pan and castor-oil were equally ineffective as emotional stimulants. And yet beneath the surface we were keenly alive to the influence of our surroundings. Nature played on our pulse like a kitten on the keys and joy and sorrow played "touch" with our emotions with all the abandon of a board-school half-holiday. This was many years ago.

To-day a startling change can be observed. Our countenance is no longer impassive. It is emotional, electric, fluid as molten larva, aye, and almost as ugly. And the cause of this dramatic metamorphosis that has revealed the libel of our nursemaid and the misunderstanding of our parents, is none other than the editor's letter-bag. This is the most varied bag in the whole wide world, containing things far more wonderful than are ever seen at Wembley or on the midnight dinner-board of the Nurses' Home, and far more secret than are contained in the better-known hand-bag of Squeak. It is daily delivered to us, filled with letters—rude letters, polite letters, facetious letters, letters of applause, information, ridicule and abuse. Pamphlets, poems, scientific articles, tins of patent baby-foods, begging-letters and tracts from various religious societies pour from the bag each morning and these are the stimuli which convulse the editorial face.

Yesterday morning the most amazing of all letters was received. It ran as follows:—"Dear Sir,—Kindly remove my name from your list of subscribers to the GAZETTE as I can no longer follow its policy.—Yours very faithfully, A— B—." This breathless token of fidelity arrived with all the unexpected suddenness of a night-sister. For the first time in fifty-two years a reader had confessed his inability to follow our policy. A rude editor might have repeated the words of an equally blunt but far, far cleverer man of letters and replied, "We can tell you the facts; we cannot give you the wit to understand them." But that is not our policy. Ours is one of a very different nature. Our policy is—

Of course, when one comes to define a policy in so many words, one must proceed cautiously (unless it be an insurance policy, in connection with which caution is not common), and before stating our own, we took the counsel of our advisors. It was with the subject revolving in our mind that we entered the College dining-hall and overheard the remark, "and a very good policy too." Never yet have we let good-breeding stand in the way of good copy and unblushingly we entered the conversation. "We are in search of a policy," we said, "perhaps we could make yours do. Let us try," and the reply came as the death-knell of all our hopes—"Never mix." How could any journal of standing thrive on a principle of "never mix"? Such a policy, like the remuneration offered to our contributors, would be merely nominal and as unsatisfying to our readers as the newly-sewn grass in the Park would be to a flock of sheep. It would be an entirely theoretical policy and would differ as widely from the real thing as a school of thought from a school of mackerel. Oh, for a real, live policy, we groaned—and went to bed.

In that most mystic hour of night, the hour between twelve and one, when nightingales are reputed to keep the strictest silence and the "junior" cannot for the life of her decide whether to write p.m. or a.m., we awoke and saw before us in letters of the most dazzling brilliance the now intelligible words "Never Mix." There at last was our policy. We would not mix. We would be unmixed, real, sincere, genuine. Impostors and mountebanks should have none of us. Hypocrites we would lash unmercifully, the pure in heart should stay to tea.

There then, oh Readers, and the faithful A. B., who once was a reader, is our policy. It is given to you as it was given last night to us, with childlike faith, and long, long will we maintain it spotless and without reproach —long after, even, the completion of the Fives' Court.

▭

As an example of another excellent policy, we would congratulate the Hospital Authorities on the election of Dr. J. J. Coneybeare to the Staff as Assistant Physician. This is a generally popular promotion, as was shown by the tumultous reception that Dr. Coneybeare received on entering the Theatre to deliver his first clinical lecture.

▭

On Thursday, May 22nd, Dr. Rollier is visiting the Hospital to deliver a lecture at 4.30 p.m. on "Heliotherapy." Visits from distinguished members of foreign schools are all too rare and it is confidently hoped that the theatre will be full on this occasion. Heliotherapy is a subject about which we, as a hospital, know nothing, but the time will surely come when it will take its place among the most important branches of our science and we shall give up attempting to cure by physic diseases that can be so much more easily and economically cured by sunshine.

▭

The present number of the Gazette is the one annually produced as a special "Publisher's" number. In it will be found a large number of book reviews and lists of new books. Medical knowledge in all its branches has long since outgrown the capacity of a single human mind, but in order to gain a general idea of the subject as a whole it becomes increasingly necessary to read text-books and monographs —particularly monographs—on its various branches. Reviews of the very latest books of this kind are continually being published in the Gazette, readers of which are advised to be guided largely by them. They are written by men qualified for the task, both by degree and general aptitude, after a careful study of the books concerned. Students, who are in doubt as to the best books to buy, should find these lists of reviews of great assistance.

▭

The month of May finds the more public-spirited students running in circles at H.O.P., preparing for the Athletic Sports. Last year Guy's lost the Inter-Hospital shield, together with one or two little odds and ends in the shape of cups, and new champions are required if we are to run back with it this year. To refrain from entering events in the Hospital Sports on Wednesday, May 28th, from an idea of inferiority is not a sign of modesty. It is a sign of mental aberration, of confusion of ideas, and is an unpardonable insult hurled in the face of your best friend, which is yourself. Any man, who is physically sound, stands as good a chance as his neighbour of covering himself with glory in any of the events, and by entering, training and competing does his share towards seeing that only the best and fittest of our athletes qualify for the Inter-Hospital Sports on June 11th.

On Saturday week, May 24th, the University of London Sports are being held. Particulars may be found on the posters in the Hospital, or may be had from any of the Athletic Sports Committee and all, who can do so, should enter in the hope of scoring points for Guy's in the Rosebery Cup.

▭

We are asked to call the attention of diners to the fact that the Annual Rugby Football Club Dinner will be held on May 14th, as announced elsewhere in the Gazette. Why we are asked to do this we have not been told, but the "Rugger" Dinner is always such a vigorous and well-attended function that to give its advent undue prominence seems to us distinctly dangerous.

▭

One of the most thrilling of Inter-Hospital events is the Annual Boat Race against St. Bartholomew's Hospital. This titanic struggle will take place at Putney at 5.30 p.m., on Tuesday, May 20th, when we hope that, as usual, a launch will be hired to follow the boats.

Encephalitis Lethargica.

Clinical Lecture by Dr. C. P. SYMONDS.

THE story of Encephalitis Lethargica has a fascination of its own for the medical student of to-day, for it is the story of a disease which had no place in the literature of medicine until it was described by Economo of Vienna in 1917.

The epidemic, which began in Hungary in the early part of 1917, died down in the summer months only to return in the following winter, this time to spread over the whole of Europe, and in the two following winters there was no civilised country in the world which escaped.

Since then it has been with us each year during the winter months, and though its activity has somewhat abated it has taken rank among the regular men of death.

Was this a new disease? Or was it the flaring into flame of an old spark long smouldering? History supplies the answer.

In 1890, then as now, close on the heels of a world-wide epidemic of influenza, there appeared in Hungary and spread to Northern Italy small epidemics of an illness which at the time was called Nona. The sufferers were attacked with intense lethargy and drowsiness unlike that met with in any other disease. They presented drooping of the eyelids, inequality of the pupils, stiffness of the neck, deep-seated pains of irregular distribution, and in some cases absent tendon jerks.

These epidemics of Nona died out, but it can hardly have been a coincidence that in association with the next epidemic of influenza Encephalitis Lethargica should have made its appearance in the same part of the world. The probability is then that the disease is not a new phenomenon, but that the virus had been kept alive, transmitted from one unrecognised sporadic case to another, until in some way still obscure it blazed again into an epidemic under the influence of a fresh outbreak of influenza.

From a further study of medical history it seems that similar epidemics have occurred from the time of Hippocrates, who remarks upon the occurrence of the disease in the cold season of the year. Celsus also wrote a chapter upon the lethargic fever, and Franck noticed in 1837 that after an epidemic of influenza old people and children were attacked by encephalitis, which often took a lethargic form.

The cause of the disease we believe to be bacterial. Emulsions of the nervous substance of those dead of it when injected into monkeys produce an illness with characteristic lesions, but no organism has yet been discovered.

In the brains of fatal cases we find evidence of acute inflammation in vascular engorgement, and perivascular exudate of lymphocytes. In the later stages degenerative changes occur in the vessels of the affected areas, and these probably account for certain sequels of the disease in that the blood supply to these areas is thereby diminished.

At the present moment we appear to be in the midst of an epidemic of Encephalitis Lethargica, which in extent if not in severity recalls that which introduced the disease to this country in 1918. At one of my Out-Patient days a week ago the first three patients to present themselves were found to be suffering from this disease.

In their individual symptomatology the recent cases conform in the main with our previous experience, yet when considered as a series they present certain features peculiar to this season's outbreak. Indeed, in successive winters—for Encephalitis Lethargica has a definite seasonal incidence—it has seemed that some particular group of symptoms has, on the whole, predominated, lending a distinctive character to the annual epidemic. That of 1918, for instance, was characterised by a predominance of cases with intense lethargy and severe ocular palsies; in 1920 the prevalent type was that in which mental excitement was associated with rapid involuntary twitchings—the so-called "myoclonic" type. In Vienna one winter cases with polyneuritic symptoms and absent tendon jerks prevailed.

The exact meaning of these variations is obscure, but it seems reasonable to assume that we are dealing with several strains of the same virus, each perhaps with a somewhat different selective incidence upon certain parts of the nervous system, and that in a particular seasonal epidemic one strain is predominant.

Be that as it may, on account of the variations to be met with in this many-sided disease, I have thought it of value to review briefly the clinical histories of 16 new cases which I have seen during the past month.

The three patients who presented themselves one after the other at my Out-Patients last Saturday will serve as introduction, for they were typical examples of the present outbreak, in which the majority of cases seem to be of insidious onset and mild degree, for the most part ambulatory cases.

Case 1.—The first was a boy aged 12, whose mother gave the history of a fall on the head to which, as is often the case, all subsequent symptoms are attributed. In point of fact the injury had been a trivial one, no more than a bruise above the eye, with no symptoms of cerebral damage, and had nothing to do with the subsequent illness. This commenced ten days before he came to us, with complaint of double vision and occasional headache. The boy was said to have been restless at night and talked excitedly when he should have been asleep. In the daytime his mother noticed that he was mischievous and troublesome and that his arms and legs "were all of a work."

As we saw him he presented the appearance of a mild case of chorea with constant purposeless jerking and twitching movements of face, neck and hands. He was bright-eyed and alert and did not look ill, but had a thickly-coated tongue. His temperature was 99·8. In addition he showed slight internal squint apparently due to weakness of one or other of the sixth nerves, and nystagmus which was best marked on looking upwards and to the left. There were no other signs of local damage to his nervous system.

Case 2.—The next patient was a woman of 28 who complained of a dazed feeling and feared she was going out of her mind. This had commenced five days previously and she was subsequently unable to get any sleep for the next few nights. At times she saw double; when looking at one child she would see two. On the day before we saw her she became very sleepy; she could not keep her eyes open and would lie down to sleep anywhere. She went to a cinema to try and "work off" her drowsiness, but fell asleep there.

She appeared as she described herself—dazed and sleepy. She told her story with an *appearance* of apathy, but spoke sensibly enough and seemed from what she said to be genuinely alarmed about her symptoms. Her temperature was normal, her pulse 100, and she also had a furred tongue. We could discover no signs of local nervous disease with the exception of a doubtfully extensor response on the left side.

Case 3.—The next patient was again a woman, aged 27, whose illness, however, was of a somewhat longer duration. She dated her trouble from a boil in the left external auditory meatus which had burst three weeks previously. This was followed by headache and sleeplessness. She lost interest in things around her, felt ill, and complained at times of seeing double. After about ten days she at last had a good night's sleep which she put down to the good effects of a dose of brandy. Two days later she went out, but became giddy and dazed so that she had to be brought home. There it was noticed that her face appeared blue. On being laid down she at once went off to sleep and "started to shake all over." She could be roused, but kept falling off to sleep again and resented disturbance. In this state she had continued for six days before we saw her. During her sleep the relatives frequently observed twitching movements.

In this woman's face was apparent something more even than the immobility of sleep. Her face was completely without expression, and as she told us her story and we looked at the living eyes in a graven face and listened to the low monotonous voice we were forcibly reminded of the picture of Paralysis Agitans.

On examination of the nervous system we could find no sign of local damage save nystagmus. This was very well marked and obtained in all directions. Her tongue was very foul and coated, temperature 99·2°, and pulse 110.

We were unable to find room for these cases in the Hospital and they were sent on to other institutions. The histories of two cases still in the hospital will illustrate the probable course of the others.

Case 4.—A boy, whose early history corresponded closely with that of Case 1, was admitted under Dr. Hurst. After a few days the choreiform movements ceased, and drowsiness succeeded excitement. The temperature which was at first slightly raised, fell to normal two days after admission.

The next case has not fared so well.

Case 5.—A man, aged 55, consulted me on March 29th on account of double vision. He

had had no illness in the previous 40 years. On the 25th he woke up feeling, as he said, "a bit livery and out of sorts." He went to his work, but felt dizzy all day, not quite clear in his head. He ate his meals well, but in the evening began to see double. That night he had very little sleep. For the next two days his condition remained much the same. He was much worried about his diplopia, and very restless at night, at times talking nonsense. His bowels acted normally and he ate fairly well. On the 28th he began to be unduly sleepy in the daytime and slept at night also.

When I saw him he looked sleepy and apathetic and took little interest in his surroundings. His temperature was 100°, pulse 126. His eyes were bloodshot, his tongue thickly coated. Upward movement of both eyes was defective, and the pupils were unequal, the left being larger. Both pupils also were eccentric, being displaced upwards and inwards. He has been in Hospital since April 1st and his temperature, as you will see from the chart, has shown an irregular elevation, rising at its highest to 101·4°. The pulse has been constantly above 100. He has become more and more drowsy and appears always to be dozing. He is readily roused and will answer questions sensibly in a low monotonous voice. He is extremely apathetic and indifferent to his surroundings. For several days he has occasionally wetted his bed, but this appears to be due rather to indifference than to incontinence. When asked for an explanation he says he could not be bothered to ask for the urinal. His face has lost all expression, and close observation reveals a constant rapid succession of very fine movements of the upper lids and eyeballs. As the lid comes down the eyeball moves upwards and vice versa. Apart from this he has developed no further physical signs. The cerebro-spinal fluid taken on April 2nd contained 20 lymphocytes per c.mm. and ·05 per cent. of protein.

The histories of three other cases are so like those which I have already related that their repetition would be monotonous.

Thus in eight cases out of 16, the history has been one of insidious onset, with little or no constitutional disturbance, of transient diplopia without marked strabismus, and of a variable period of insomnia and restlessness followed by a moderate degree of lethargy with loss of facial expression and occasional twitching movements.

The objective signs have been in all cases a furred tongue and a rapid pulse, and in some cases there has been a rise of temperature. Of physical signs of nervous damage the most frequent have been nystagmus, slight weakness of the ocular muscles, and the Parkinsonian facies.

In other cases the excitement and restlessness of the early stages has been intense, and the nocturnal delirium so noisy as to necessitate special care. Two such cases have recently been in the Hospital, both young men, whose symptoms have resembled each others so closely that the relation of one will suffice.

Case 9.—A. I., male, aged 20, was admitted under Dr. Hurst on March 6th with the following history which was taken by Mr. Scholefield.

He had previously enjoyed good health, and had given satisfaction in the office in which he was employed as a clerk.

On Tuesday, March 4th, he was sent back early from work as he could no longer see to turn over the tickets he was counting. He complained that he saw two or three of everything. There was no headache, no sickness. He went to bed and spent a restless night, talking a great deal. His speech was rambling but coherent. The next day his mother noticed that he squinted, the left eye being drawn inwards towards the nose. He remained in this condition all day, becoming rather excitable, and unable to keep his legs still in bed. He was able, however, to get up alone and use the night stool. He ate well and had no sickness or malaise.

On the night of the 5th—6th he had diarrhœa, since when his bowels had not been opened. There had been no disturbance of micturition. On the 6th he started a curious movement of his tongue, sucking against his teeth persistently. He had never been unconscious save when asleep, and had not talked incoherently.

On the night of the 6th he commenced having hallucinations, complaining of animals, snakes, etc., in the room. In this state he was admitted and proved so noisy and intractable that it was found necessary to transfer him to the Strong Room.

On admission the temperature was normal and the pulse 80. On only one occasion did the temperature rise above the normal line when it reached 99·2° on the second day after admission.

When examined next day he appeared flushed and excited and talked fervently in a loud voice, and had involuntary choreiform movements of the legs, tongue and lips. A bright erythematous rash was present upon the forearms, legs and dorsum of the feet. After watching him carefully we concluded that this was simply the result of friction of the parts against the bedclothes on account of his constant restlessness. He showed weakness of the left sixth nerve with diplopia on looking to either side, and nystagmus. No other signs of local damage to the nervous system were discovered.

He was given chloral and bromide and paraldehyde at night, and in a few days became quieter. Although sedatives were then discontinued, he passed into a drowsy condition in which he remained until he was transferred to a M.A.B. Hospital on April 9th. During this time he seemed always to be awake, but was notably lethargic and apathetic. The nystagmus disappeared, but the pupils now became unequal and reacted very sluggishly to light and accommodation. They were also slightly eccentric, being displaced upwards and inwards. Before he left, his face had developed a mask-like expression.

The cerebro-spinal fluid was examined on three occasions.

On the 4th day of his illness there were—
170 lymphocytes per c.mm.
Protein ·06 per cent.
Chlorides ·70 per cent.
Sugar present.

On the 10th day—
80 cells per c.mm. lymphocytes and large lymphocytes.
Protein ·025 per cent.
Sugar normal.

On the 27th day—
20 cells per c.mm.
Protein and sugar normal.

You will have remarked that in this case diarrhœa occurred in the early stages of the illness. Gastro-intestinal symptoms are not uncommon at the onset and may arouse the suspicion of Botulism, as in the following case. Some of you may remember that the first cases observed in this country were thought for a time to be instances of Botulism.

Case 11.—Mr. G., aged 20. This boy had never had any previous illness of any severity. Three or four weeks ago he had a bad cold and stayed away from his work for a few days. At the time when he returned to his work his mother noticed contortion and twitching of his face on occasions, and advised him to stay at home for a day or two longer. He returned to his office, however, and appeared to be in good health until March 19th.

On that day he partook at lunch in a city restaurant of some sausages. Later in the day he vomited. On that night (Wednesday) he was very restless. He insisted on going to work next day, although on rising he noticed that he had double vision. At the office he felt restless and had some diarrhœa and further vomiting. He returned home early in the afternoon and spent a very restless night again.

On the Saturday morning his temperature was 99·2°.

A fair-haired muscular lad lying in bed, but in a constant state of physical agitation. He contorts his face, shrugs his shoulders, arches his back, then bows it, shifts himself continually, now up, now down, the bed. His face is flushed as that of one violently excited, and in the stress of great physical effort. The skin upon his back presents a uniform scarlet flush, apparently due to the continued friction against the bedclothes.

Mentally he is quite clear, but shows a peculiar form of over-activity. Left to himself he is silent despite his continuous wriggling and jerking movements, but when asked questions blurts out the replies with an unnatural display of eagerness and exaggerated movements of the face, lips and head. So also when asked to open his mouth, put out his tongue, or touch his nose, his movements are excessive, almost violent, and sometimes incorrect, owing, it appears, to erroneous anticipation of the command.

When spoken to firmly he was able to control his movements for five minutes at a stretch, but as soon as we were out of the room his mother says that he was again active and demanding to be allowed up.

I found the pupils somewhat dilated and eccentric, the circle of the iris being displaced upwards and inwards. No other signs of local damage to the central nervous system. No evidence of disease elsewhere. Pulse 120. Tongue furred.

One of the possibilities which we had to consider in this case was that the sausages eaten on March 19th (which were noticed at

the time to have a rancid taste) had been infected with the bacillus botulinus, and that all the subsequent symptoms were of this origin. This bacillus, as those of you will know who read in the newspapers the tragic story of the Loch Maree cases, produces preliminary symptoms of gastro-intestinal disturbance followed by progressive paralysis of the cranial nerves. In the majority of outbreaks of this disease a "commensal" history is obtainable, that is, the group of persons affected are known to have partaken of the same food. Here, however, the absence of a commensal history was of no account, for the patient had eaten the sausages at a restaurant among strangers.

The points which helped us in the differential diagnosis were the non-progressive nature of the cranial nerve palsies which at the end of three days were limited to diplopia without obvious strabismus, the excited mental condition, and the restless movements.

Except for the prominence of gastro-intestinal symptoms, this last case resembles the last two to which I have referred.

Here, then, is a second group comprising three cases out of the total of sixteen, in which mental excitement by day and noisy delirium at night, with transient diplopia and restless movements, formed the arresting features of the early stages and were prolonged for several days before the supervention of lethargy.

There is a further group of three cases in which the predominant features of the onset were localised lancinating pains later associated with shock-like involuntary contractions of the musculature in the same region of the body. These cases of the neuralgic-myoclonic type of onset are in my experience uncommon, but when met with may present great difficulties in diagnosis. Professor Arthur Hall of Sheffield has written a note recently in the *Lancet* with especial reference to those cases in which the pain in the initial stages is referred to the upper or lower abdomen, simulating a diaphragmatic pleurisy or appendicitis. We have had an example of this class recently in the wards (Case 12).

In some cases these myoclonic spasms may be much more extensive.

Case 13.—In a boy of 17, whom I saw three weeks ago, they involved the pectorals, all the abdominals of both sides and the dorsiflexors of the feet, and were so violent as to keep the bed in a constant state of vibration. In this case, as in the last, the movements were associated with a dazed mental condition.

The interval between the first onset of pain and the development of other symptoms may be considerable, and it may therefore be impossible to make an accurate diagnosis in the early stages.

Case 14.—On the 26th March there appeared at my Out-Patients a man, aged 29, who stated that having previously been in good health he had been seized 14 days past with a sudden pain in the right upper lip. This continued in the shape of paroxysms which he indicated as having followed the course of the second division of the trigeminal nerve. He himself considered toothache the probable cause and had a tooth extracted. Gaining no relief he came up to the Hospital and had three more teeth removed, again without benefit. A few days later, however, the pains died away and he considered himself well.

On March 25th—the day before we saw him—while standing at his occupation of making ice-cream he was seized with a sudden feeling as of an electric shock down the right side of his body followed by a spasm of acute pain near the ball of the right great toe.

Thereafter the pain continued in paroxysms which he described as knife-like stabs recurring in the same spot at intervals at first of an hour, later more frequently. The paroxysms caused him to screw up the right leg. Between whiles he experienced a dull ache both over the area of the acute pain and along the upper and inner side of the left calf.

Although the man seemed to be unduly sorry for himself, I was convinced that some organic cause existed for his pain. There was no sign of local injury or disease to account for it. It followed the course of a nerve root, as had also the previous pain in the face. The argument was therefore that both pains were of central nervous origin. In certain respects the paroxysms resembled the lightning pains of tabes, but he presented no other evidence of this disease. In view of the epidemic of encephalitis which was abroad, and my previous experience of the "neuralgic" type of onset in this disease, it seemed to me probable that this would prove to be the correct diagnosis. Under observation his behaviour confirmed our first impressions; he made no secret of his wish to create alarm and gain sympathy. As he lay in bed, however, his pains, which were now diminishing in severity, were accom-

panied by clonic contractions of the muscles of the right thigh, especially the quadriceps.

He showed no elevation of temperature, and the cerebro-spinal fluid was in every respect normal. The pains and muscular spasms gradually disappeared. There was, therefore, no evidence upon which we could base a certain diagnosis of Encephalitis Lethargica, and it was hardly possible to exclude the possibility that all his symptoms were assumed. On the night of March 30th, however, he complained of diplopia, and when seen three days later had evident weakness of the right sixth nerve, nystagmus and a little drooping of both upper lids—signs which I think make it clear that our original diagnosis was correct.

The remaining two cases of my recent series first engaged medical attention for symptoms of a different order yet on careful observation presented many points of similarity to the foregoing.

Case 15.—The first was a young woman whom I saw at St. Andrew's Hospital in whom by far the most striking symptom was the rapidity of her respirations which had continued at 40 to the minute for many days. The early history was vague, but she had been admitted to Hospital in a stuporose condition with the information from her doctor that he had found sugar in the urine and the suggested diagnosis of diabetes. On admission she was found to be breathing with great rapidity. Her temperature was in the neighbourhood of 100. She was in a lethargic state. No physical signs of pulmonary disease could be detected. The urine contained no sugar, but gave a heavy precipitate of albumen. The suspicion of uræmia being entertained, her blood urea was investigated, but proved to be within normal limits. The cerebro-spinal fluid showed 12 cells per c.mm. and a slight increase of protein. The Wassermann reaction was negative.

She had continued in the same stuporose condition with rapid respiration rate for three weeks when I saw her. The chest had been repeatedly examined with negative results. The urine continued to contain albumen. She seemed to become more drowsy by day, but at night time was sometimes talkative and delirious. Her temperature ran an irregular course between the normal line and 100.

On coming to examine her, one's attention was at once arrested by the spectacle of a patient with rapid shallow breathing lying flat on her back without any cyanosis or sign of respiratory distress.

Although a hysterical tachypnœa may present a similar picture, I cannot remember to have seen these appearances in any organic disease except Encephalitis Lethargica. The explanation is that there is no air hunger, but the tachypnœa is due to direct excitation of the respiratory centres in the medulla by a local inflammation. The transitory glycosuria which was observed in this case was probably of similar causation.

Other signs of the disease were also present. The face had the characteristic mask-like appearance; the pupils were unequal and slightly eccentric; and there were irregular twitching movements constantly to be seen in the muscles of the shoulder girdles.

There were no signs of pulmonary or cardiac disease.

Disturbances of the respiratory rhythm are by no means uncommon in Encephalitis Lethargica and may lead, as in this case, to the suspicion of pulmonary, cardiac, or renal disease.

The albuminuria in this case was, I think, greater than could be ascribed to the febrile condition of the patient, and the probability is that we were dealing with a patient whose kidneys had suffered previous damage. We have to remember that the early stages of renal disease are often insidious and give rise to no symptoms, and as Maclean has shown from routine examination of the urine in some thousands of recruits, a certain proportion of the supposedly healthy population prove to have albumen and casts in their urine.

The last case of my series illustrates the manner in which this disease may commence quite gradually with alterations of temperament and behaviour. This is a type of onset peculiar, I think, to children.

Case 16.—N. B., aged 8. On February 1st she vomited without any apparent cause. Her mother noticed that she was mischievous, always interfering with people in an unusual way; scolding did not seem to have much effect; and on the following Sunday this behaviour became more marked. She would jog people's elbows when they were writing, and so on. At night she was restless. On Monday morning she appeared to have wet her bed, and appeared rather dazed. She went to school as usual. The teachers found her rather dazed, but she went back in the after-

noon. On Monday night she wet her bed again, having been restless in the night. She had been given a pill, and had an action of the bowels also in the bed, afterwards smearing the fæces all over the sheets and herself. When her mother scolded her for this she took very little notice. Since then the condition has remained very much the same. Dr. Lewis first saw her on Tuesday, and noticed irregular jerky movements of the arms which made him consider chorea. She has been in a more or less dazed condition, but can be roused. When she is awake she is negativistic, peevish and unlike her usual self. She has spoken very little during the last few days, and does not answer questions readily. She has taken her food quite well when roused. There has been no complaint of pain or discomfort or of visual trouble. Dr. Lewis has taken her temperature once or twice and found no fever.

On Examination.—She is awake, refuses to answer my questions, but when I ask her if her name is "Nancy Smith," shakes her head, does not or will not name objects shown to her, but indicates their use more or less correctly. Later, playfully using stethoscope as telephone calls "Daddy" down it to order. Performs various movements on request. Resents being examined and struggles, with tears at times, but *no natural cry*. Optic discs normal, pupils and cranial nerves normal except for slight weakness of right face especially in emotion, and protrusion of tongue to right. Right arm weaker and less used than left. Right lower limb flaccid and nearly paralysed. Sensation appears normal. Reflexes, arm jerks present and equal, lower abdominal missing on right, tendon jerks present and equal in the legs with definitely extensor plantar on the right. No neck rigidity, ear drums normal, no mastoid tenderness, tonsils large but not inflamed, no glands, chest and abdomen normal.

I have no time to deal in detail with the difficulties of differential diagnosis in this disease. The great variety of symptoms make this at times a problem which resolves itself into a process of excluding other possibilities. I will, however, draw your attention to the mistakes which I have seen most frequently made in this connection.

I have several times seen Tuberculous Meningitis erroneously diagnosed as Encephalitis Lethargica. Perhaps the most useful point in the distinction of these two diseases lies in the examination of the cerebro-spinal fluid. In Encephalitis Lethargica the sugar content and chloride content remain normal, in tuberculous meningitis the sugar and chlorides are, as a rule, markedly diminished.

The drowsiness produced by a deep-seated Cerebral Tumour, particularly if it be in the neighbourhood of the third ventricle, may closely simulate that of Encephalitis Lethargica, and may also be accompanied by cranial nerve palsies. This mistake in diagnosis I have also seen on several occasions. Here the points of greatest value are the usual presence in Cerebral Tumour of swelling of the optic discs. In the other disease a mild optic neuritis is occasionally to be observed, but is a rarity, whereas in tumour it is the rule. Another point of value is that it is the rule in early stages of Encephalitis Lethargica to find some elevation of temperature. In cerebral tumour, on the other hand, the temperature is usually sub-normal.

Cerebral Abscess is a condition which is characterised by lethargy and drowsiness accompanied in the later stages by symptoms of cerebral or cerebellar damage. Here, also, there may be fever, and the cerebro-spinal fluid may show the picture of simple meningeal irritation produced by a septic focus impinging upon, but not communicating with, the subarachnoid space, viz., a simple increase of lymphocytes without other change in the spinal fluid. The resemblance here to Encephalitis lethargica is very close; therefore one should make it a strict point in the examination of a suspected case of Encephalitis to enquire for history of otorrhœa and to examine the drums.

A fourth mistake which is apt to arise in those cases which commence with excitement is that of supposing them to be suffering from a mild Manic Excitement. I have seen two or three of these cases admitted as such in the observation wards of a mental hospital before the true diagnosis was made. A history of transient double vision or the occurrence of myoclonic movements was, as a rule, the first point which drew attention to the real character of the disease.

In the treatment of this condition we have no specific remedy, and the welfare of the patient depends more than anything upon careful nursing. In this I would emphasise the importance first of seeing that the patients get an adequate amount of nourishment. In the lethargic stage they will often fall asleep

between mouthfuls, and it may require a good deal of coaxing and patience to get them to finish their meals. When the condition of lethargy passes into coma, there is considerable danger of aspiration broncho-pneumonia if they are spoon-fed, and it is wiser therefore to give them fluid nourishment by means of the nasal tube. I have known a patient fed in this way for over two months who ultimately made a fair recovery.

The only drug which is useful as a routine measure is Urotropin, which can be given in 10 grain doses to an adult four-hourly. Since we desire its antiseptic action in these cases only upon the cerebro-spinal fluid, we can prevent its irritative action upon the urinary tract by adding to this 20 grains of Potassium Citrate.

For the excitement and sleeplessness of the earliest stages I have found the most useful drugs to be Paraldehyde in single doses of 2 to 4 drs. in order to procure sleep at nighttime, and for the restlessness and excitement of the day, $2\frac{1}{2}$ grains of Medinal with 5 grains of Aspirin t.d.s. In the later stages, massage and exercises help to set the patient on his legs again both physically and mentally.

Convalescence should be prolonged even in a mild case, and hard mental work should be avoided for at least six months. Experience has taught us that grave sequelæ may follow even after a latent interval of this period, and I do not feel that a patient is safe from such complications until he has remained well after his initial illness for five or six months.

One is often asked whether the disease is infectious, and if so what risk there is to other members of the household. In the strict sense of the word, we must regard the disease as infectious, although it is only in the rarest instances that more than one case has been reported in the same family.

Nevertheless since certain experimental work in France and America has suggested that the virus may be conveyed by the saliva or nasal secretions, it is wise to take certain precautions. The patient should have his own eating utensils which are not removed from his room. His towels, sponge, and so on should also be entirely separated from those in general use, and washed out in disinfectant at the end of the illness. Squares of old cotton should be used in place of handkerchiefs, and after use should be burned in the room.

An accurate prognosis in the early stages is a matter of great difficulty, if not impossibility. It is only if the patient makes a complete recovery from the initial illness and maintains this for six months that we can regard him as quite free from further trouble. Even so it seems that one attack does not confer immunity, since one or two cases of second attacks have been reported.

The Light Side of a M.O.'s Life in the Army.

BY FRANCIS HEATHERLEY, F.R.C.S.

MY DEAR BOY,

Your mother has posted you the steriliser, dressing forceps, and khaki handkerchiefs, and has enclosed a post card ready stamped so that you can acknowledge receipt.

I am glad to hear that at last you are in uniform for, whatever Carlyle may have said about clothes, you will find that uniform goes a long way with your men, and don't forget that you also ought to make a point of being smart and soldierly in your appearance and actions.

As a scientific man you may have a sneaking contempt for drill, but you will learn in time that it is of the essence of discipline and essential to the evolution of esprit de corps, the welding of independent units into a harmonious whole.

The aerial evolutions of a flock of peewits in which hundreds of birds wheel, rise, turn, and fall, as if actuated by one will, is one of the marvels of nature; however, it is not a miracle, but the result of hereditary drill.

So doing a thing in a smart and soldier-like manner is prima facie evidence of fitness just as in an animal the grace and suppleness shown in its movements are a proof of its health and vigour.

I have lately been wondering how I could best help you with the fruits of my experience, and as trite maxims, besides being boring,

are often without definite indications as to their application, I have come to the conclusion that a blend of imaginary and actual incidents would if related be more useful.

In order to improve old tales of bygone days and make them more interesting I have been to some trouble in bringing them up to date, discarding nullahs, kopjes, and drifts, and substituting washouts, dugouts, and C 3's, so as to make them seem real and modern instead of ancient and dusty.

Tact, the instinct which leads one to avoid rope as a subject of conversation in a family circle which has suffered a sudden but unmentioned loss, is a gift you inherit from your mother. Cultivate it as you would a precious flower, for, combined with a dash of imagination termed initiative, it will carry you farther in five minutes than hours of hard work.

One evening one of our sergeant-majors came to the adjutant in a dilemma. We were in camp at the time, and it seems that the sergeant-major happened to be at the gate when a swagger motor car drove up and an elegant gentleman alighted with a suit case and announced himself as a recruit. The sergeant-major, not being used to such an apparition, lost his head and gave the youth a tent to himself, believing he was an officer, and then realising his blunder came to the adjutant for some suggestion which would save his face. Scenting sport, I joined the consultation, and as a result interviewed the new arrival and told him to strip to the waist, explaining whilst I examined his skin that he had been temporarily isolated because we had been warned of the arrival of a recruit suffering from the itch.

As it was evident that the warning did not refer to him he could now join his comrades. From his expression it was evident that he was well pleased with the prospect of sharing a tent with ten others, and from the punctilious salute with which the sergeant-major favoured me on parting I gathered that he also was pleased. I may be an old fogey, but I do hate the slovenly nose-touching salute of the modern officer. When a private salutes you properly you should take the trouble to give him back as good as he gives; it leads to your being respected by your men.

As to the sergeant-major, if you wish to shorten his title, call him major; should you fail to notice the crown, and inadvertently call him sergeant, apologise at once for the oversight. You must not forget that in the new armies it is easier to become a lieutenant than a sergeant-major.

There is another attribute much rarer than tact, of which I fondly believe you show signs, which I also commend to you for cultivation, and that is, moral courage.

Your particularly job is looking after the health and welfare of the men, and you must be inspired by our motto, "In Arduis Fidelis." Your personal comfort, ease of mind, even your professional prospects will at times be imperilled when you find yourself up against official inertia, but you must be prepared to risk all for their sake.

The most important men in the battalion from your point of view are the adjutant and the lieutenant-quartermaster, and if you three work well and diligently together it will go a long way towards the efficiency of the battalion.

I was once posted to an infantry battalion the day it arrived in camp. The next day the quartermaster asked me if I had noticed that the men had only two blankets apiece. Having been busy with sanitary work I had not noticed the fact and thanked him for drawing my attention to it.

With the want of inspiration which frequently characterises the decisions of headquarters and which seems in many cases due to their preference for hotels as quarters, this particular unit had been ordered under canvas late in the autumn and whereas in the town from which they came they had been billeted indoors and each man had been provided with bedboards, a straw palliasse and four blankets, here under canvas they were expected to make themselves comfortable on the bare ground with a ground sheet and two blankets.

I said I thought they ought to have at least two more blankets, but adopted his suggestion of three more, as the chequered row of ribbons on his chest was eloquent of experience. He said that he had plenty of blankets in store and that if I would undertake afterwards to get authority from the D.D.M.S. he would see that each man had five blankets that night.

It made the men thoroughly happy, and I could hear them cheering the quartermaster, but it involved me in a lot of worry subsequently.

I embodied my request for authority for the issue of three additional blankets per man in

my sanitary report, and by return of post got authority for—two.

I should have been quite content to let the matter rest there, but not so the quartermaster who kept worrying me to fulfil my promise. So I had to sit up at night and imagine corroborative evidence in my weekly reports on the health of the troops. You have no idea of the trouble I had to get that imaginary blanket which was to straighten the quartermaster's accounts.

I wrote of men complaining of not being able to sleep on account of the cold, of men sleeping fully dressed, of an epidemic of colds, of lumbago, sciatica and toothache. I wrote of early frosts, of sore throats, of men sharing their blankets and thus lying so close that if cerebro-spinal meningitis appeared it would rapidly spread. I knew the D.D.M.S. had a wholesome dread of this complaint, and yet he turned a deaf ear to all my appeals. Finally I seized on a chance remark of the quartermaster's and reported that many of the blankets supplied were of very inferior quality and added a little artistic touch of my own, that several of the men had been heard to threaten desertion on account of their discomforts.

Next morning I received a disquieting telegram telling me to be prepared to meet an officer on his arrival.

On the day following I accordingly had the unusual honour of a Sunday visit of inspection. The "brass hat" who put his head into my tent half an hour before he was due asked me what I was doing. Fortunately I was busy with a little stunt of my own, carefully measuring the latest recruits in order afterwards to note the effects of training. He showed approving interest, but soon said that he wanted to examine blankets, but first he wanted to know the meaning of the next tent being full of men at that time of day, church parade. I explained that all sick men temporarily excused duty were collected in that tent so that I had them under my eye. He said it was a good idea, but still he wanted to examine blankets. As ill luck would have it, all the blankets in the detention tent were of excellent quality. You will often find that men who are good for nothing else have a knack of taking great care of themselves.

He asked me again to show him some of these bad blankets, so explaining that I was not showing him selected blankets, I gaily took him to the next tent wondering uneasily whether the quartermaster had been guilty of exaggeration; under the circumstances I considered it possible, but reprehensible.

However, to my relief he came across quite a run of blankets which when held up to the light showed considerable porosity. He then, to my still greater relief, expressed a wish to inspect the scene of an alleged pollution of drinking-water in the camp of a unit half a mile away. I was able to guide him to it and in the end he spent so much time over the imperfections of other camps that he had no time for any in my own.

But before he left he drew me aside and warned me that the D.D.M.S. had been very upset by my last report. That he was a dear old man, but that one of my last remarks had made him very angry. I could imagine what it was like as from my observation of him he lingered in my memory as an elderly, white-haired gentleman with a bull neck and beefy face on which the veins would swell with anger. The remark, of course, was the artistic touch about desertion. I thought, with sorrow, of the inane chuckle with which I incorporated it in my report.

As I thought it quite possible that whilst examining each pile of blankets the brass hat had also noted their number, I thought it best to make a clean breast of the matter, and explained that I had been obliged to underline my remarks, if not exaggerate them, in order to keep faith with the quartermaster.

But apparently he had not counted them, and as it gradually dawned on him that the men had been sleeping in five blankets for a month past whilst week by week my reports had become more alarming, a grim smile crept over his face.

Later on in conversation with the C.O., on the latter asking him if I were likely to accompany them in their next move, he replied that he did not know, but he rather thought I should travel far.

A few days later authority for the blanket came and I was enabled to square up with the quartermaster.

Although the cultivation of truth is a grand ideal, you will soon find out that in a naked condition it runs a poor chance in the army. Where judgment comes in is the amount of clothing required to make it viable.

You will also before long come to realise that brain power is not a monopoly of the highest ranks.

Another fact which I hope I may spare you the occasion of learning from experience is that in the army any criticism of orders from your superiors is a gross breach of discipline.

There is a bright but anonymous genius at the War Office who cannot sleep soundly at night and who thus in the silent hours becomes inspired with brilliant notions for the welfare of the army, and as a result startles us with some such order as "no officer will in future appear on parade wearing a frog," or "no officer off duty will be seen in the street with a pipe in his mouth."

Of course as long as it only affects sartorial details it does not matter, but when an order comes out which if strictly enforced would do great harm, then if you can be of any help to your brother officers, or perhaps I should say your half brothers, as, of course, you are only attached to a unit, you must, if appealed to, be prepared to violate your conscience on their behalf and clothe the truth even to the extent of winter clothing.

On one occasion an order came out that no officer must have as his servant a private who was fit for active service. Now, as a matter of fact, an officer's servant on active service ought to be tip-top, both mentally and physically, and of course the longer he has been with him the more useful he will probably be for he has to play the part of foster-brother and in many cases the day comes when that officer will not only owe all his comfort, but even his life to the devotion of his soldier servant.

Therefore you will find the experienced officer with a good batman treating him as his foster-brother and taking care that he gets little privileges.

This order came like a bombshell, and in consequence there were immediate appeals from all sides for my help.

The adjutant started the ball at breakfast by telling me of it and saying that he was sending me his batman for examination after breakfast so would I make a note of his name? You will note the adjutant's tact in confining himself to the man's name.

Later on the captains followed suit. With one subaltern I made a bargain. He was very anxious to retain his man Mawdsley who, according to him, was a jewel beyond price. He related with fatherly pride that one billet he was put into, although bare as a barn in the morning was quite comfortably furnished by nightfall. I said I could quite believe it, as more than once I had been obliged to raid his quarters in search of desirable articles of my toilet which his young thief had carried off, so if my good offices were required he must look to it that my belongings should be immune in future.

Never hesitate to get rid of your batman if he is a rotter. Get your orderly to sound one or two likely men, and when you have arranged with a man, ask the Mess President to let you change your batman.

I had one blighter who told me one morning as I was shaving that Mr. Pinnington, the latest arrival, had lost his kit on the rails and that he sent his compliments and might he borrow my hair brush. I said, "Certainly, take it to him with my compliments." Presently, as I stood before the glass, I saw him lay my clothes brush on the dressing table. I asked if that were the brush he had taken and he, saying it was, I gave him the hair brush and insisted on his taking it in although he said it was quite unnecessary as the gentleman was quite satisfied. Later at breakfast Pinnington told me that on appearing with the clothes brush, and being told he had made a mistake, he said it was the only brush I had and that I always used it for my hair.

Now it so happened that at this time, medical boards being apparently in disfavour, the forthcoming inspection of men to be re-classified was to be made by the Brigadier-General, which, of course, entailed alterations in my procedure. One morning our second in command honoured me with a visit during sick parade and drawing me aside for confidential discourse said he had come on rather a peculiar errand.

He was an extremely conscientious man, I may tell you, and made rather a mystery of disclosing his object, which was: had I heard of the new order?

He did not wish me to strain my conscience on his behalf, but his groom, Williams, was the only man in the battalion to whom he dare trust his mare. He had examined Williams the previous day and had discovered a blemish in that the third toe of his left foot had a stiff joint. Did I think that this would justify me in classing him as only fit for Home Service? I said I was afraid that it was of no use whatever.

"But," I said, "I am surprised that a man

of your scientific attainments cannot see that this man is suffering from heart disease." Williams was standing grinning a few paces to the rear of his master. "Why, one can tell it by his face," and then I added aside, "This inspection is to be made by the Brigadier who considers himself an expert on stiff joints and deformities, but he takes my word for heart disease." So I said, "Come here, Williams, so that I can listen to your heart and make sure that it is safe to keep you."

"It is as I expected: tachycardia due to auricular flutter, only fit, with care, for Home Service."

This diagnosis immensely relieved the Major. He was quite bucked up and asked me knowingly if any of the others had been on similar errands.

I said, "Let me see; yes, you are the last but one." I evaded his query as to who the officer might be by presuming that he was too highly principled, but being pressed admitted that disclosure of his identity would make me blush. And yet after all this I found my batman next day in a great state of mind because his name was on the active service list.

Now Parker was the best batman I ever had, he looked after me like a mother, turned my boots out glowing like tortoise-shell. In fact, boasting of his attainments and of the fact that for ten years he had been General Smith-Dorrien's batman led to our colonel appropriating him later on.

To quieten Parker I went to see the Major who said he was quite mistaken over the matter. However, next day, Parker showed me his name on the list, and as these were days when a man you had seen in the morning was gone with the draft by evening I sat down and wrote to the Major saying it was not for me to withhold Parker if the nation wanted him, but that as his heart was far worse than Williams's, as far as my recollection went, I should be glad if he would tell Williams to report himself to me next morning for re-examination.

Williams never came for his examination, but that night Parker's name was in Battalion Orders—for Home Service only.

Some weeks later the Colonel came to me in trouble about the orderly room. It appeared that a travelling medical board at their last visit had played the cat and banjo with the staff, depriving him of several promising young clerks, and he expected that the next board, whose visit was due in a few days' time, would order his chief clerk, Sergeant Blotter, back to the ranks.

As the colonel pointed out, the sergeant had been so long at this kind of work that he was highly specialised, in fact, in confidence, he would sooner lose the adjutant. In his present berth he was invaluable, whereas having forgotten all his drill he would be useless in the ranks.

Therefore he relied on me to save him.

I pointed out that it could only be done by grossly deceiving the Board, but he said he intended to be present all the time to support me, as, if I failed, he intended doing some plain speaking as he could not run the battalion without Sergeant Blotter.

On my reluctantly agreeing to oblige him, he said, with a leer, he supposed it would be another case of heart-disease. But I explained that although heart-disease might do for the Brigadier it would not go down with a Medical Board.

I said that I considered that owing to Blotter's sedentary life, his fat, pasty-faced complexion made Bright's Disease a better ticket.

In the first place I had never known a travelling medical board provided with a urine testing outfit. In the second place ours would be away at the hospital if they wanted to use it, and if the worst came to pass we should have a record that albumen was not invariably present.

Then I had a private interview with the sergeant and told him that the C.O.'s orders were that he was to have Bright's Disease, and that I was now to make him conversant with the leading symptoms in case he were cross examined, and finally writing down the word albuminuria, I told him to repeat it several times at night before going to bed so that it might trip lightly from his tongue on the great day.

Unfortunately on the fateful day when the President, looking down at the list for the next name, called out Sergeant Blotter and the sergeant pressed forward from amongst the waiting crowd, and I said in a low confidential tone, "This is a case of high myopia, sir, but that's nothing—he has albuminuria," I found it very difficult to keep my face straight, for the sergeant was the picture of terror and just managed to mumble "alboomooria."

But he looked even worse when the President said sympathetically, "Dear, dear, do you think its really safe to keep him? I'll recommend him for discharge." But I promised to watch his case carefully, and the colonel said he was sure the sergeant was in safe hands and that he could not be spared, and after a few anxious seconds the President gave in to us and passed on to the next case.

The next morning as I passed through the orderly room Blotter drew me aside and in an aggrieved tone respectfully suggested that I carried things a bit too far, that I had given him an awful fright, that for a few moments he thought he was discharged, that he had met some M.O.'s in his time, but that I was absolutely the limit.

(To be continued.)

Some Points from the Evolution of the Teeth in Man.

Paper read before the Guy's Hospital Dental Society, on January 25th, 1924, by C. H. EDNEY.

(Concluded).

Let us dwell next for a space on the part that the canine tooth plays in the evolution of man's dentition. How like the stiloid pens the Romans made it stands to write a chapter of romance in this long story of the ages. The tale the mind loves to dwell upon is that the canine tooth is the rudimentary sex weapon of man and all that that means. But as the tales of Hans Andersen and Grimm cannot be applied to ordinary facts of life, no more, it is to be feared, can that story of its function be ascribed to Man's canine tooth. Could I believe that Man's canine is a vestigial fighting weapon, and were I an adept with the brush, I would paint a picture that should thrill the world of "Eoanthrpus Dawsoni" battling with brother Dawsonus. Both locked in a muscle-snapping embrace, the canine teeth of the victor would be seen driven well home into the throat of his adversary, while Eoanthropa looked on with a gaze of resigned indifference upon her unintellectual Prognathous face.

But here we are concerned with the function for which the human canine was evolved, if indeed it has ever had a specialised function in Man.

The Piltdown skull of all the specimens so far discovered is the only one that shows the canine in any way resembling that tooth in the anthropoids. Although he is undoubtedly human, or at least shows a distinct departure from the apes proper, yet he has markedly simian characteristics—the dolichocephalic head, the chinless mandible and prognathous maxilla, and most remarkable of all the pronounced canine. In all those other animals who possess large canines, such as the cats, and the classic example of the musk deer, it is established that they are provided with this tooth as a weapon by which they are assisted in propagating and protecting their kind. Of the canines in anthropoids Mr. Montague Hopson says: "They are obviously weapons of offence and defence, and must be regarded as sexual, inasmuch as they are far more pronounced in the males than the females." But Professor Arthur Keith says: "We are still in ignorance of the exact use of the canine teeth in anthropoids. They are certainly organs of defence or attack, but they are evidently used also for certain masticatory purposes. They are regulated in their degree of development by the same factors as regulate sexual characters by secretions arising in the genital glands." This is proved adequately by the effects of castration in the males of most of the deer—in pigs, and so on. This character seems to be common throughout the lower animals which possess specialised canines. Long canines prevent a side to side movement in eating, and it would seem that if they were not required for fighting purposes they would shorten. Now there is one thing and one thing only that has lifted man above the lower animals, and that is the specialised use of his hands.

From the very moment that this ape-like creature that was to become man, as we know him to-day, acquired the habit of using his paws for other than swinging on boughs and collecting his food, or—perhaps because he started to use them for that latter reason—he threw aside with them as it were, the mantle of his impotence and started on his great career. The evidence of his earlier appearance is existant, and perhaps before long will come proof, but there in the Eocene—"The Dawn"—he stood and looked towards the world as his to conquer.

The evolution of the hand of man is closely related to that of his canines, and where the one began to be specialised I believe the other ceased. From that moment he snapped the bough of his ancestral tree and planted it anew for himself. He made implements which possibly were weapons. Crude it is true, so much so that to the unskilled eye they hardly seem to differ from natural flints. But he struck with them and possibly threw them, and preferred them to his teeth to kill his prey. In the vicinity of the Piltdown skull was found a large bone implement, which has been accredited to Eoanthropus. In the long description of it given by Dr. Smith Woodward he mentions the fact that "The outer edge is marked by an oblique groove, which seems to have been worn smooth by the rubbing of a thong." He also tells us that "The Abbé Breuil observes that the man who made it must have been previously accustomed to work with wood." So it

would seem that if the Piltdown man made that implement he could associate ideas. He probably realised that he could move in the plains as well as in the forest, and we will suppose that he learned to hunt good flesh, and made a better and less limited diet for himself. We see him on the path of higher life, his brain and hand rapidly developing, and his jaws, in any case become more highly specialised. And for this reason Professor Keith's words are especially interesting. In his paper on "The Earlier Forms of Prehistoric Man," he says: "It is strange that the chewing surfaces of the Piltdown molars are worn as if there had been a side to side movement, and as if the canines had not been long enough to prevent this movement." But in his reconstruction of the skull he shows the canines to be certainly longer than would be comfortable in more modern man, and provides an upper diastema for the accommodation of the lowers. The canine itself was found after the skull, but Mr. Dawson never doubted but that it was part of the skull, especially when it is remembered that the specimen was broken up by workmen before he saw it. It had a much worn facet on the posterior surface which Mr. Hopson says was worn by its "occlusion" with the upper. I think the word "occlusion" is a little unfortunate there, because as Mr. Hopson is more likely to agree than disagree with Professor Keith as to its function in the light of its peculiar structure, and his description of the skull is so detailed and lucid, one feels disappointed that he does not stress the point of the use of the tooth in connection with eating. He makes a most important statement in giving the details as follows: "The general shape of the crown is more like that of a large human lower *deciduous* tooth than that of a member of the permanent series. An examination of the apex of the tooth shows the orifice of the pulp canal to be very patent; this may be due to a minute portion of the apex of the tooth having been broken off. But it is interesting to remember that the canine of the Heidelberg man also shows an open apex. The pulp cavity is larger than that of a modern tooth." Professor Elliot Smith describes it as the deciduous tooth of an ape, but as the Piltdown man, although nearer to the apes than to "Homo Sapiens," is placed much higher than the former, and the deciduous teeth of modern man resemble the permanent dentition of Palæolithic man the sharpness of difference between these two opinions is not so alarming as would at first appear. Dr. Smith Woodward, who was present at its discovery, mentions the word mastication. He says: "Like the molar teeth this canine is also much worn by mastication." And the attrition in performing that function must have been very severe, because secondary dentine is present in the facet. This tooth has been dealt with here at some length because not only is it the only canine of its kind in man, but it is important to remember that the higher Heidelberg man belongs to the Pleistocene, and he shows no "caninism."

Although the contemporary remains found at Piltdown are chellean, Professor Keith thinks that Eoanthropus Dawsoni existed before that time, probably in the Pliocene period. But if these races co-existed Piltdown Man may have been wiped out by Neanderthal. Or if, as Mr. Hopson so graphically puts it: "They met, they fought, and they mixed," the useless canine may have been handicapped by it in his own evolution, and according to law died out. If, as the large pulp and open apex would suggest, it grew from a persistent pulp, and an attempt was being made to keep it for powerful masticatory purposes which were not successful then its only function may indeed have been to exterminate its user. But there is a very distinct gap between man as "Homo Primigenous" and Apes, and there is left much to be proved as to his antiquity, and therefore as to how long it took to evolve for him a new canine.

But I cannot help thinking that the canine in man fast dwindled and never was of service to him as a specialised organ. Let us go back another epoch and enlarge our view of "caninism." In the Triassic rocks of South Africa Professor Seely found a class of mammal-like reptilian forms among the Theriodonts. He called them the "Anomodontia." Their teeth were not haplodont, they differed in pattern throughout the dentition. The most remarkable point from the aspect of these points about the canine is that those of these creatures were not above the normal line. Professor Osborn tells us: "It is now generally believed that the Theriodontia are not far from the actual ancestors of the mammalia; they constitute the only group from which the mammals could have been descended." So then we have Anaphomorphus branching off to become the ancestor of the Primates, and his fossil remains show some degree of "caninism." Then we reach the catarrhine apes who brought it to its greatest development. Man arrives and it commences to dwindle, until it is now returned to its primitive state. Not quite yet though. It has been a powerful tooth indeed, and shows its history even now The long root and late development, and its unpleasant dislike of being left out of the picture, and finding a way into it of its own sometimes. Furthermore I cannot think the canine, for all its atrophism, is by any means doomed to extinction, and later I shall discuss the possibility of its further use through evolution.

It is to be feared that we have waded through many technical facts and theories in order to see in some measure how the dentition of man has been evolved, and how closely linked to, and of what vital importance it has been to him in his life.

Now, perhaps, it would be interesting to discuss his ascent through various epochs of civilisation to the present time, and to try and observe what part his dentition now plays.

The links discovered are so few and so scattered that it is possible to make but a disjointed story of the development of civilisation in Palæolithic times at least. Much of it has already been told, but there is yet a little more to say of the part the teeth have played. "Pithecanthropus Erectus" we may take, perhaps, as the first sign of man, if one accepts the verdict of Professor Sollas. Professor Dubois, who first examined it, does not appear to state his opinion very definitely, but in any case it can only serve as a first milestone on man's long road to "Homo Sapiens."

Piltdown is the first to show signs then of civilisation, and if he were contemporary with Neanderthal he must have been hard put to it. The evidence would be overwhelming if the bone implement before described could be proved to be contemporaneous

with him, for it carved from the femur of an earlier elephant than the mammoth living in the late Pliocene or early Pleistocene—" Elephas Antiquus." Heidelberg man, in that case would be definitely his contemporary. Mighty hunters all of them, fearless against terrific odds, savage and cruel. Their diet must have been of the crudest. The outstanding feature of the dentition of Neanderthal man was the high degree of pulp cavity development, descending below the alveolar margin. To this Professor Keith has given the name of ' Taurodontism," which he says shows " a tendency to assume the condition of the cud-chewing animals," and believes that it was specially adapted to a diet of roots and the like. The tremendous pulp cavities would certainly point to the necessity for great vitality in the teeth. We can picture him laying some sort of trap or ambush for the speedy bison, and having partly ensnared him, killing him with his " touchers " or hand axes, and hacking off parts of him to be roasted. If vegetable diet were of any value to him—and Professor Keith thinks it was—he tears roots from the ground and maybe boils them or eats them raw. In any case he swallowed a considerable amount of mineral matter, which he attempted to chew with his crade teeth. And because he encouraged his " Taurodontism " that condition evidently prevented him making much advance in the matter of cultured diet, with such effect upon his gastric system as may have been fatal to his race. Professor Keith certainly lays stress on the fact that " Taurodontism " played a part in his ex-extinction. So that unadvanced and weakened in numbers he meets the invading Crô-Magnon from other climes.

This brings us to the end of the fourth great glacial epoch—the " great Thaw " as Professor Elliot Smith calls it. The higher civilisation as represented by Crô-Magnon advances as the climate becomes warmer, and if Neanderthal man is to come into any violent conflict with Crô-Magnon at all his must be a speedy end. Crô-Magnon, of magnificent physique and highly specialised brain bids for the Kingdom of Neanderthal. In addition to his teeth he has large, clumsy, unspecialised hands, of which Professor Smith has something most important to say. He remarks: " The large size (he speaks comparatively, of course) of the Neanderthal brain was due to a great development of that region which was probably concerned primarily with the mere recording of the fruits of experience, rather than with the acquisition of great skill in the use of the hand, and the attainment of the sort of knowledge that comes from manual experiment." He was only 5 feet 3 inches in height as against the 6 feet measure of his foe, and so Crô-Magnon, who by the use of javelins can out-distance him in marksmanship, who by greater speed and muscle specialisation can outweigh him in the fray brings his career to a close. We might look on " Homo Mousteriensis " as being the equivalent in his time of the aboriginal Australians of to-day. These men, who have been preserved in that great plantation Australia, are distinctly primitive, although by their dentition and other characteristics they are higher than Neanderthal, they have branched off from the family tree, and it needs but the touch of the white man to seal their fate, which he is rapidly doing.

Let us leave this withered branch then and step through the Crô-Magnon epoch nearer to our own time. The outstanding feature of this civilisation is that man has conceived his primitive idea of associating emotions with the heart. He has made drawings of animals being slain by a blow in the heart, so that he realises that it is the centre of life. He has evolved a much better dentition than has hitherto been in use, and so it may be imagined that man has found an even balance of existence between natural and physical elements of destruction. His teeth are clearly adapted for specialised prehension and considerable comminution. The disappearance to some extent of prognathism points to the fact that prehension such as tearing is correlated more with actual mastication, and a fairer share of work is performed by each differentiated tooth. There is very little more to say before we come to the really great epoch that marks a revolutionary advance. Neolithic man is widespread and his remains in every way abundant. We find him in England, as the Tilbury man and Essex woman, in Egypt as the Taids, in America as the Aztecs and so on. And his civilisation varies not at all in the great essentials. From being a hunter he has learned to domesticate animals in this epoch, which would seem to be the chief influence of this new civilisation. It must be borne in mind that all this time while the face of the earth has been undergoing change, from the subsidence in one part and the elevation in others continents are in the process of formation and have been formed. So there will be a specialisation of fauna and flora with its consequent effect on the food. Man himself will have become segmented into more distinct peoples. His nomadic instincts will be governed by his responsibility to his herds and flocks, and so we may imagine that he has arrived at the modern type of refinement of feature, being established by the law of the survival of the fittest. It is a fact of overwhelming importance that owing to the unique science of mummifying, and the distinctly local habitat they occupied it has has been found that the Egyptians set the standard by which all civilisation of that time can be judged, and it is a matter for thanksgiving that a great anatomist, Professor G. Elliot Smith, turned his attention to the wholesale dissection of the types of that time. His authority on Egyptology is of the highest, and so remarkable a picture has he painted that I feel this paper would be lacking if the big governing influences of the time were not set down. Professor Smith in his book " The Ancient Egyptians and the Original Civilisation," tells us: " The actual dates of so many important Egyptian events are known with a close approximation to the actual figures of the years in which they occurred that Egypt has become the chronometer for the histories of all peoples of antiquity whose doings can be shown to be contemporary with Egyptian events."

The first advance is the lifting of man's intellect to the plane of a comprehensive religion. He migrates from the forests lying east of the Nile, attracted by the greater facilities for obtaining his food. And that first man who conceived for them and taught them the science of irrigation became the first realisation of kingship and godhead to them. He is " Osiris." They navigated their river, they decorated themselves with gold, and having mastered cultivation through irrigation turned themselves to the study of Science and Art. So we see man making his first really great effort to break

away from his primitive state and take matters very largely in his own hands. It is necessary to say here that the Egyptian epoch is described in two periods. There is the Proto-Egyptian or Pre-Dynastic before the days of the highly organised state, and the Dynastic or period of the Pharoahs. What Professor Smith stresses as the cause of their greatest advancement is the discovery of copper, and he describes it in these words: "It was the custom of the Proto-Egyptian women, and possibly at times of the men also, to use the crude copper ore, malachite, as the ingredient of a face paint, and, for long ages before the metal copper was known, this cosmetic had been an article of daily use." It would seem that perhaps a drop of this paint may have been touched in some way by fire, and the metallic bead that accrued opened up the possibilities of the metal to the races. They evidently developed it to a high extent and prized it much, because the sacristan knives of their priests were made of it, and it may be imagined that their highest art would be exercised in the making. The Aztecs, a race closely allied to the Incas of Central America, used these knives in their religious rites, and as it was their custom to cut out the hearts of their sacrifices with them they evidently lacked nothing in sharpness. I have examined with great care that exquisite publication, the Catalogue of the Royal Mummies of the Museum at Cairo, and to the best of my resources some skulls of this epoch, and although there is absolutely no sign of it in the mummies it has occurred to me that there are indications of our own form of incisor occlusion in some of the skulls. And so far as I can form an opinion under such limited conditions I think I am in a position to communicate to you that their life is edge-to-edge.

It seems to me that what is to determine the evolutionary destiny of the epoch in which we now live is the effect of oral disease on the teeth, and although it is a matter of great difficulty to demonstrate any theory by examples, there are factors that I think can help us to come to some conclusion.

A skull was discovered in Northern Rhodesia in 1921, which is known as the Broken Hill man. The period in which he lived is very obscure, and because of controversy among experts I have not mentioned this specimen before. It closely resembles the Bushmen of Central Africa, and is probably comparatively modern to the Palæolithic Cave-Men. But its interest here is in the fact that it shows distinct signs of caries of the teeth, and of mastoid disease. Professor Bryce in his demonstration at Glasgow in 1913 showed a speciman of Neolithic man to which I shall have occasion to refer again. It showed no caries, but there are signs of periostitis with alveolar abscess. In 1919 Mr. A. R. Cox read a paper before this Society on "A Specimen of Early American Dental Art." Although I cannot think that a reference to it will have any direct influence on my argument, I feel that it is not inappropriate to mention so interesting a phase of human culture.

Mr. Cox demonstrated a wonderful tooth that had probably been intentionally mutilated in order that it might be filled with some metal for artistic purposes. There, at any rate, was quite a skilful filling of some metal which appeared to have been cut to fit the cavity. These people were permeated with syphilis to such an extent that they seem to have enjoyed a considerable amount of immunity from its more drastic ravages. Their aristocracy made a fashion of exhibiting their symptoms, and the one which will immediately occur to us—the notched condition we now know as "Hutchinson's Teeth"—was the one of which they were most proud. If, by some sad mischance, any member of their community was so unfortunate as not to have been infected, or to have no signs of his infection, he had his teeth filed to resemble this typical sign to maintain his social position. But this Aztec civilisation has practically no direct bearing on Western man. The race is extinct—of necessity.

So it is established that oral disease is no new experience to the more recent forms of men, and if the Broken Hill Man is of Palæolithic origin it would be almost impossible to say how far it may have played its part in the evolution of man's dentition. But as there is very little evidence of great antiquity of the skull there is little fear that any very great problem will arise about this aspect of it. Before we can really say what the exact relation of dental disease is to dental evolution it seems to me we have to decide this great question.

Is civilisation the result of evolution, or is it, beyond a certain stage, an artefact of evolution—an instrument in man's hands to control the forces of Nature? It is a gigantic question, and one which modern intellect has seriously to consider.

Man has three functions to perform in life, and however elaborately he may perform them they are still the same unchanging three—

To propagate his kind.

To feed himself.

To protect his mate, and young, from the elements of Nature.

With the second of these only are we concerned, and we must examine how man has evolved his staple food. Man has reached that stage when his existence is essentially an artificial one, and in the matter of his diet he has plunged into a struggle against Nature as severe as any other he has undertaken, and in the course of it I believe that that highly specialised mechanism of his alimentary system—the teeth—is being destroyed. Neolithic man recognised the importance of grain as food and cultivated it. Agriculture had been his ambition right up to Proto-Egyptian times, when it was achieved. The abdominal contents of some of the early Egyptian mummies examined by Dr. Fritz Netolitsky, besides mice, fish, and imperfectly cultivated tubers, revealed husks of barley and millett. That the earlier racial inhabitants of these islands were experts in husbandry there is astounding and fascinating proof. You may remember the startling discovery that has been made by accident during the alst two years. An airman engaged in some kind of reconnaissance work took a number of photographs which when developed showed quite distinctly the outlines of fields and earthworks created at different periods, that could not be detected on the ground. On being brought to the notice of the British Archæological Society researches were carried out which revealed much of the method of cultivation practised at the time. The instruments by which they ground their food were, of course, already known, and with the state of the teeth and jaws found in skulls of the time a complete description of the way they treated their grain could be given. There is considerably

more attrition in the teeth of the earlier Neolithic period than in those of the Bronze Age, when the Romans conquered Britain. This is accounted for by the fact that the grinding was cruder. The grain was crushed in stone "querns" by hand, and the husk would not be broken down so perfectly. This, with a liberal admixture of grit, would cause greater wear to the teeth. But this in itself would tend to be a defence against dental caries, although there is some explanation of the condition of Professor Bryce's skull, and others that have been discovered. The grinding apparatus was more perfect in the Bronze Age, and would eliminate more of the husk and grit, and so there would be less attrition. But it would seem that there is as yet no serious sign of caries. Whether there was a knowledge of breadmaking in those days I have not discovered, but sooner or later a method of softening the flour was bound to come. Mr. Thomas Read, in the paper he read before the British Society of Medicine in 1913, is at some pains to describe how the destruction of ferments in the germ of the grain sets up acid processes in the mouth which, he contends, are an important source of caries. He points out that the destruction of the ferments, of which the glucose-producing diastase is, of course, the essential one, causes the bread to be introduced into the mouth as starch. During its mastication lactic acid is formed. By the elimination of the bran, he argues that the dental tissues are robbed of a source of lime, which weakens the enamel against the assault of nascent lactic acid. Whatever the merits or demerits of this discussion may be, it certainly gives food for thought when the teeth of Neolithic man were retaining these elements and we are not. Mr. John Humphreys observes an edge-to-edge bite in English mediæval skulls. There would seem to be good reason for this. With the advent of implements to aid us in eating, which is of quite recent origin, the modern occlusion of the incisor region has been brought about. Mediæval nobles still tore the flesh off the bones with their teeth. Perhaps the easiest part of Nature's task has been the moving of the teeth to accommodate them to changing conditions. This process depends on the alveolar bone, that most transitory tissue of all the hard tissues. Prognathism declined first by the retarding of the teeth to adapt themselves to more specialised prehension. The teeth show a desire to meet more perfectly, and to get smaller. Even in Heidelberg man they are smaller than the actual structure of the jaws would seem to require. The arch expands to allow more room for movements of the tongue in speech, and this may have a bearing on the more vertical direction of the incisors, and the skull of the Le Moustier youth shows very well what a large part of his prognathic structure is influenced by alveolus. So the teeth move in the alveolus which decreases in substance, the true bone following suit, especially in the maxilla. A limited knowledge of orthodontics gives the impression that this is the more easily manipulated of bones in the buccal region. The decrease in size in the mandible depends chiefly on the decrease in power of the temporal and masseter muscles. So the zygomatic arch becomes less prominent, and the refinement of the features is brought about. Consequent on this latter condition there is a less important function for the teeth to perform, less space provided for their growth, less attrition to guard them from disease. The incisors have less work to perform than any of the teeth in historic times, and just as the premolars in most canidæ are used for guiding the food to the carnassials, so in modern man they would seem to have an even more highly specialised function in aiding the tongue to guide the food to the molars. The mandible has decreased more and more in strength. The maxilla has an entirely different development and no mobility, and retains a more constant position; and so the teeth in the labial region have come to occlude in front of their fellows in the mandible.

Dr. Wm. Wallace took some measurements of skulls in the Royal College of Surgeons and found "that when the measurement was taken from the angle of the jaw to the mental prominence, the size of the civilised jaw and the size of the savage jaw were almost the same, indicating that the existence of the chin was not due to any extra growth in the length of the lower jaw, but that the alveolar process and the position of the teeth were somewhat posterior to what they were in savage races." The canines have become more vestigial. They may have sunk deeper into the bone to reach the level of the other teeth. On that I should not care to take the responsibility of expressing any opinion of my own, but as it would appear, it is the crown that has decreased in size. But to decide this question it would be necessary to study their eruption in such a skull as Eoanthropus, which at present there is no opportunity of doing. They are still left to us, however, with something of their original shape. Thus we arrive at the present form of our dentition by the process of adaptive modification, which, I contend, it is in our power to control to a certain extent.

But we are not so far removed from our ancestors that we can entirely disguise our origin. The voice of Darwin comes to remind us gently but firmly of that in speaking of the romance of our canines. In stately English he says: "He who rejects with scorn the belief that the shape of his own canines, and their occasional great development in other men, are due to our early forefathers having been provided with these formidable weapons, will probably reveal, by sneering, the line of his descent. For though he no longer intends, nor has the power, to use these teeth as weapons, he will unconsciously retract his '*snarling muscles*' so as to expose them ready for action, like a dog prepared to fight."

And what of the future?

If the organ of mastication provided by Nature is neglected by Man, for the comminution of food that he has specialised for himself, then the judgment of Nature, by which, however we may struggle, we are eternally and sternly governed will decide against it. That this is already taking place is communicated to us by the classical examples of the gradual disappearance of the third molars and the upper lateral incisors. If an organ atrophies it retrogresses in the direction of its primitive origin. Upper deciduous lateral incisors which have become rudimentary are apt to take the form of the primitive cone, or to be, as we say, "peg-shaped." I have seen only two cases that I can remember, but they are convincing, especially when my friends Mr. Brigham and Mr. Hirschberg tell me that they have noticed cases of their own. Others with far greater experience can doubtless quote numerous instances, but it is satisfying to observe with one's own eye some fact which one can accept for oneself as proof. In the Neolithic speci-

men of Professor Bryce, to which I have already alluded, it is interesting to note the absence of lateral incisors, but he makes this statement: "Whether the absent teeth had failed to develop, or had been extracted, could not be determined." Then again we have the transitional canines of "Homo Mousteriensis Hanseri," with sharp cusps from the cingulum and the ridge dividing that tooth somewhat in the manner of a fully-developed pre-molar. Perhaps these examples may be taken to show an experiment on the part of far-seeing Nature to see, as it were, what could be done. Perhaps already there was a predisposition, although I am bound to say that I cannot think so at that stage. An extraordinarily interesting fact, which by the kindness of my friend Mr. Price I am able to state, is that that gentleman has congenital absence of his upper left lateral incisor, and that the succeeding canine has taken its place. This tooth shows a disposition to transition, although in not so marked a degree as the Mousterian one, to a premolar form. So that it may be that a new form of dentition is being evolved according to the Darwinian theory that those parts not required by Nature are being rejected, and others being specialised to take on a different function or to take their place. If we consider that in some cases present-day natives of Africa have been found to possess the full four molar dentition (and in early mandibles, to take Heidelberg as an instance, there is certainly ample room for it) then the disappearance of our molars is a still more ponderous matter. I am thankful indeed that I, personally, am so degenerate, for the prospect of losing four of mine for impaction is bad enough.

Then to summarise this argument, our incisors, or at least two of them, are not wanted and are disappearing. The canines have reached the limits of their uselessness as such and may take on a new function. The third pairs of molars share the fate of the incisors, and after consideration I am more and more led to the conclusion that Man is tending to lose his teeth as a functioning dentition. It is quite possible with medical and prosthetic aid to keep well and alive without teeth, and unless some balance is found by animal circumstance or natural experiment, man, carried eternally forward on the ever-rolling, never-breaking, wave of time, will become edentulous.

His mentality has become so great, and is indeed becoming still greater, that it seems to be overwhelming him, and it is difficulty to dissociate man's psychology from his physical capacity in modern times. We see it in the new intellect on the threshold of which we stand. We see men who do not believe in war, that primitive instinct of defence of himself and of his kind that has made him what he is, and who will not deign to serve the interests of their race when necessity demands. We see the school of thought that requires the maximum of benefit for the minimum of effort, that shows a miserable lack of spiritual as well as physical co-operation in communal service. We see those who would over-balance that beautifully adjusted instrument of Creation, Woman, by making her ape the intellect of her sires, and converting her into "Something new and strange," that complement of his being and his mind. And all these things that have seemed so necessary, and still seem so necessary, are being deserted for an artificial whim. Either this is a new race which will destroy this present over-weening civilisation and save Man from a mournful fate, or else man will remain true to his breed and wipe out this transitory off-shoot and restore his balance.

Then to conclude. If, gentlemen, you have been interested all this while, then I owe you an augmented debt of gratitude for the courtesy and patience you have shown me in the reading of my paper.

Reviews.

Materia Medica, Pharmacy, Pharmacology and Therapeutics. By SIR W. HALE-WHITE, K.B.E., M.D. 18th Edition. Published by J. and A. Churchill, 7, Great Marlborough Street, London, W.1. *Price* 10*s.* 6*d.*

SEVERAL additions and alterations have been made in this edition with the object of increasing the usefulness of the book, and an account of Insulin has been included among the organic animal materia medica. The book is too well-known and appreciated to need much description and the present edition bears all the virtues of its predecessors, with the additional one of being thoroughly up to date.

Recovery Record, for use in Tuberculosis. By GERALD B. WEBB, M.D., and CHARLES T. RYDER, M.D. 1st Edition. Published by Paul B. Hoeber, Inc., New York. *Price* $2.00.

THIS book, which is intended for the use of patients, contains eighty pages of the signs and symptoms of tuberculosis and about the same number of charts, for noting the temperature, pulse, weight and general health; for, as the authors state, "the temperature and pulse should be taken frequently." The idea of the book is that a patient, having schooled himself to look on his disease with interest, "deriving encouragement when all goes well, and caution, but not panic, when the smooth current of progress is temporarily checked," shall take charge of his own case, under the supervision of his medical advisor. Whether this would be a good thing for a patient, already rendered introspective and morose through his disease, is a moot point, but for those who are able to look with detached interest on their condition the book will be of help in preventing over-exertion.

No Need to Stammer. By H. ST. JOHN RUMSEY, M.A. Published by Messrs. Methuen & Co., Ltd., 36, Essex Street, W.C. *Price* 3*s.* 6*d. net.*

THOSE of us who have not had the misfortune to suffer from stammering will have nevertheless felt compassion for our less fortunate brothers afflicted in this way, and therefore will welcome this effort on their behalf by one who has, we believe, been a sufferer himself. He therefore writes with a knowledge born of experience and this is always

much riper than the knowledge acquired in other ways.

The Author begins by reminding us of the well-known instances of Moses and Demosthenes, but points out that their methods of overcoming this difficulty are not applicable in these days of hustle and expensive dentists. Instead, Mr. St. John Rumsey sets out to explain in full detail the causes and methods of correction of stammering being particular to point out the personal responsibility of the patient in these cases.

The book contains a chapter on "The Mechanism of Respiration, with Special Reference to Stammering," which has been ably written by J. F. Halls Dally, M.D., M.R.C.P. After a description of the act of respiration, and a statement of what constitutes correct breathing, a number of valuable breathing exercises are given which are especially suitable to stammerers.

The concluding chapter is devoted to the description and treatment of that distressing affliction known as Cleft-Palate Speech, and once more the Author emphasises the need of patience in treating such cases. We feel, however, that Mr. Rumsey has attacked this subject in the one and only correct way and all medical men afflicted in this manner should have a copy of this book for themselves, while the others should possess a copy in order that they may be able to successfully treat their patients.

Tortola: A Quaker Experiment of Long Ago in the Tropics. By CHARLES F. JENKINS. Published by The Friends' Bookshop, 140, Bishopsgate, London, E.C.2. *Price 5s., post free.*

SNATCH up this book for the first time, and you will likely toss it into the waste-paper basket. Should you repent and stoop to retrieve the vagabond you may fortuitously catch sight of the frontispiece of a trim little map over and around which sprawl such thrilling names as, Fat Hog Bay, Rogues Bay, Brandy Wine Bay, Flamingo Pond, Beef Island, and Broken Jerusalem, in fact, every whit as adventuresome as those of the chart inseparable from Treasure Island. You scent strange affairs; you begin to read.

Tortola (interpretation: Land of the Turtle Dove), situate in the West Indies, is the largest of the Virgin group of islands, which paradoxically "roughly resemble a woman of matronly proportions lying on her back in the water."

Around her shores pirates and privateers of the 18th Century were numerously skirting, and, you may be sure, not always chorusing like Gay's crew, "With a twinkum, twankum, twinkum, twankum, twang! There's none of 'em pleases a man—like Nan,"—but watchful of their chances to run down some unhappy trading vessel richly laden with sugar, rum, cotton and slaves. Nor was life ashore any less abandoned; for many of the inhabitants re-iterated the sentiments of Mrs. Trapes that, "Jamaica rum! t'is the one commodity that reconciles me to these barbarous parts." Commercial prosperity made debauchery of every kind possible.

To this island of iniquity about 1740 came a Quaker Settlement, living very different lives from their future neighbours. Dancing they abhored, and an important Friend was disowned, since he had very prudently resolved "to take his pleasures while he lived." Nor did the womenfolk escape Friendly censure. "They wore hoops before they were convinced of the principles of our Friends, but they now felt obliged to lay them off, and by this example others did the same; although on account of heat, they had as good an excuse to wear them all the year as the girls at home had in the summer-time. The Great Lord of all Gird our youth with the Girdle of Truth, and then they will not need these monstrous, preposterous girdles of hoops." But hardly so serviceable, we think.

It was among these Quaker families, in the year 1744, that John Coakley Lettsom, eventually to become one of London's most distinguished physicians, was born on an adjacent islet. At the early age of six he was sent across to England. Of this voyage, the most memorable incident was "the strange sight of carriages in the streets (of Dublin) and the ease and speed at which they moved."

Having served his apprenticeship to an apothecary in Yorkshire and an appointment at a London Hospital, young Lettsom returned to Tortola, where he amassed a fortune of £2,000. It is noteworthy that his first concern on reaching home was to free his slaves from bondage. Later he returned to England.

John Lettsom, we suppose, is best known as founder of the Medical Society of London. For our part, we would give him a niche in the temple of fame if only for this:

I, John Lettsom,
Blisters, bleeds, and sweats 'em.
If, after that, they please to die,
I, John Lettsom.

Psycho-Analysts Analysed. By P.MCBRIDE, M.D., F.R.C.P.E., F.R.S.E. Published by Messrs. Wm. Heinemann, Ltd., 20, Bedford Street, W.C.2. *Price 3s. 6d. net.*

IT is little more than 10 years ago since Freud published his first work on the subject of Psycho-Analysis, and in this short space of time so much has been written, both for and against, that the average man cannot expect to do more than gain a cursory knowledge of this so-called science. Accordingly, it is refreshing to find a small, yet clear and concise account, by one who has been able to give a considerable time to the study of this vast literature, and Dr. McBride is to be congratulated on the fairness and frankness with which he has written.

After a brief reference to the evolution of Psycho-Analysis by Freud and a comparison of that writer's "Free Association Method" with "The Association Method of Jung," Dr. McBride gives a compact account of the teachings of various psycho-analysts on the subject of Dreams, examples being given from the writings of Freud, Jung, Rivens and Adler. This is followed by a chapter in which the writer stresses the arguments in favour of a purely physical basis of mind, after which the essential features of Psycho-Analysis are criticised from the physical point of view.

Dr. McBride has certainly divorced Psycho-Analysis from scientific medicine and shown that it is more nearly related to Religious Cults, but he shows the limitations of a materialistic mind when he expresses

surprise that this New Psychology should be supplanting the older religious dogmas, for all humanity has a belief in something supernatural, whether it be in the form of a religion or only a superstition, and when man loses his faith in one direction he puts it out in another. Again, in his chapter on the physical basis of mind, this limitation is apparent and his ready presumption that the infant is only a being dominated by instinct, with no thoughts except perhaps a wish for food, is just as difficult to accept unchallenged as some of the statements which he has set out to disprove.

The Introduction by Sir H. Bryan Donkin, M.D. (Oxon.), F.R.C.P., and the views quoted later by eminent members of the Medical Profession are ample evidence that the main body of scientific medical men will not accept Psycho-Analysis in any form as it stands at present.

We recommend this book to all who are interested in this subject, because Dr. McBride has exposed in no uncertain fashion the absurd importance that has been attached to the sex instinct by some of the New Psychologists, and shown that whatever truths are hidden from us behind our consciousness they cannot be revealed by anyone who chooses to be psycho-analysed himself, and then considers himself competent to interpret the thoughts and dreams of others.

Surely one of the great arguments against Psycho-Analysis as a form of treatment is the fact that none but ourselves can link our consciousness in any way with the Great Unknown.

Insulin in General Practice. By A. CLARKE BEGG, M.D. First Edition. Published by Messrs. Heinemann, Ltd., London. *Price 5s.*

THIS book has been written to provide the general practitioner with a plain and easily understood account of the uses of and method of administering Insulin. It is essentially practical, all methods given are easily used in general practice.

The author deals in the early part of the book with the methods of examination of the patient, of the urine, and of the blood. He next discusses dietetics and mention is made of the recent methods of treatment by the Allen and by the Graham diets. This is followed by a description of the "Standard Diet," and of its use with Insulin. The large quantities of carbohydrate allowed by the author are not in keeping with the general teaching, and the method of aiming at always having a small amount of sugar in the urine is also rather unusual.

Diabetic and hypoglycæmic coma are discussed and their treatment plainly prescribed, and several chapters are devoted to other complications.

The whole book is clear and simple and should prove of value to the practitioner who has been unable to read the larger books on the subject.

Modern Methods in the Diagnosis and Treatment of Glycosuria and Diabetes. By HUGH MACLEAN, M.D., D.Sc. Published by Messrs. Constable & Co., Ltd., London. *Price 8s. 6d. net.*

THAT Professor Maclean has found it necessary within 18 months to publish a Second Edition of his book is ample evidence of the value of this work and of the esteem with which medical men regard it, and we can say nothing further in recommending this book to all those who do not yet possess a copy.

Since the First Edition was published in July, 1922, the problem of diabetic treatment has been revolutionised by the discovery of Insulin and its application, and the present volume contains a whole chapter on this aspect of diabetic treatment, which, together with the dietetic tables in the foregoing chapter, gives the general practitioner all that he needs for the most up-to-date methods of treating diabetes. Dr. Maclean has also given in detail the symptoms that may arise from too large a dose of Insulin—a condition he describes as Insulin Hypoglycæmia—and supplied us with full directions for the treatment of this condition. The book closes with a chapter on Coma, Ketonuria and Glycosuria, in which special reference is made to the use of Insulin in Diabetic Coma, and the writer states that whatever views the general practitioner may hold in regard to the treatment of ordinary diabetes by Insulin, he is under a moral obligation to give Insulin in a case of Coma.

We feel that no practitioner should consider his library complete without a copy of this book.

Insanity. By YOUNGER-SMITH. Fifth Edition. Published by Messrs. Baillière, Tindall & Cox, Ltd., London. *Price 5s.*

THIS little book was originally written to supply the need felt by the general practitioner for an acquaintance with the broad outlines of insanity. It has recently been revised and brought up to date by Dr. G. W. Smith, who has done wisely in maintaining the general arrangement which has always proved such a useful one.

Part I., dealing with General Considerations and Legal Bearings, has required little alteration.

Part II., on the Forms of Insanity, has been slightly rearranged and in some parts rewritten with the addition of a brief account of present day views. This applies more especially to the sections on "Stupor" and "Dementia Præcox," while the section dealing with borderline states has been rearranged to advantage.

This book should continue to be of assistance to the general practitioner in dealing with this difficult subject which has proved so full of pitfalls.

The Care and Cure of Cripple Children. By G. R. GIRDLESTONE, F.R.C.S., and Mrs. HEY GROVES, with a Foreword by Sir ROBERT JONES, F.R.C.S. Published by Messrs. John Wright & Sons, Ltd., Bristol. *Price 2s. 6d. net.*

LITTLE by little the Medical Profession is becoming enlightened and quite a large number of its members now realise how much more praise-worthy is a disease prevented than a far worse disease miraculously cured. We would like every medical practitioner to put four questions to himself on each disease, starting with the least important and working up to the only one that has any importance. The questions are these (1) How do I treat this disease? (2) How do I diagnose it? (3) How can I prevent it? (4) What steps have I taken to prevent it? That is the way to bring about the only medicine of any practical and permanent value.

For the same reason we would like everyone, in any way interested in medicine, to read this book,

which outlines the steps, already being taken in parts of the country and suggested for the whole of Great Britain, to treat diseased children at the earliest possible opportunity and save them from the fate of becoming crippled dependents on private or public charity. It is a scheme for watching children in their earliest years and counteracting any tendencies to rickets and tuberculosis.

The cripple is made, not born and with few exceptions, every cripple is a constant reproach to his guardians, both medical and legal.

Modern Methods in the Diagnosis and Treatment of Heart Disease. By FRANCIS HEATHERLEY, F.R.C.S. First Edition. Published by Messrs. Baillière, Tindall & Cox, London. *Price 5s. net.*

THIS work of a Guy's man, dedicated to "those who find salvation in compensatory hypertrophy and who fear a well-conducted mitral," puts before the reader in a hundred and eighty pages the generally-accepted, modern views on questions of heart disease. It is a book, that will repay reading, pencil in hand, so that the definite statements, made after a full discussion of the pros and cons, may be marked for future occasional reference. Another feature of the book that will appeal very strongly to unqualified men, whose clinical experience is as yet small, is the number of descriptive cases that are given, for, as the author says, "it is easier to remember the leading features of a disorderi by remembering a case than by memorising a list of signs and symptoms." The book is instructive and at the same time makes good reading, containing that most rare of all ingredients of text-books, an occasional joke.

Quain's Elements of Anatomy. (Vol. IV., Part II. Myology.) By T. H. BRYCE. Eleventh Edition. Published by Messrs. Longman's, Green & Co., London. *Price 25s. net.*

THERE has been considerable delay in the production of the Eleventh Edition of this work, due to the European War, but this belated volume is an excellent addition to the literature of human anatomy. The type is clear, the illustrations, largely drawn from special dissections made for the purpose, are well-defined and the comparatively small size of the book makes it a very attractive one to the student of myology. Throughout the book the actions of the various muscles are described in detail. Attention is not drawn to the actions of each muscle working by itself, a condition extremely rare in nature, but of the lines along which each works when acting round a joint, in connection with several others. This is the aspect of the subject which is of such importance in all joint and bone surgery of the limbs, and in this book the information will be found, given in a clear and very intelligible manner.

An Introduction to the Study of Secretion. By Prof. SWALE VINCENT. Published by Messrs. Arnold &Co. *Price 10s. 6d. net.*

A BOOK on a subject such as this from an author of the standing of Prof. Swale Vincent is always welcome, and so we are very glad to see that he decided to publish the course of lectures which he delivered in connection with the Advanced Course in Physiology at London University, in 1922.

The author does not delve immediately into a description of the various secretions, but first gives us a summary of the mechanism of secretion from both its histological and physico-chemical standpoints. In the later chapters we are given a full account of the histology of the various secreting glands, and a resumé of the various activities of the products of glandular secretion.

In view of the long interest of the author in internal secretions and the considerable contributions he has himself made to their study, it is particularly interesting to read his views on some of the recent additions to our knowledge, and we hope that his criticisms of many of the extravagant statements being made about hormones and their activities will receive the notice that they merit.

Gastric and Duodenal Ulcer. By Sir BERKELEY MOYNIHAN. Published by John Wright & Sons, Ltd., Bristol. *Price 2s. 6d. net.*

MANY readers of the GAZETTE were able to hear Sir Berkeley Moynihan's lectures, delivered before the Hunterian Society of London, in January of last year. Those who were unable to do so are now able to purchase them in book form at a very small price. The two lectures are described as "a record of ten years' experience" and as the experience of so practical and observant a surgeon, are bound to command our attention. The book is recommended as a point of view to the very debatable question of the diagnosis and treatment of gastric and duodenal ulcers.

The Student's Handbook of Surgical Operations. By Sir FREDERICK TREVES and JONNATHAN HUTCHINSON. Fourth Edition. Published by Messrs. Cassell & Co., Ltd., London. *Price 10s. 6d.*

THE Fourth Edition of this book has undergone drastic revision. Great strides have been made in Surgery since the publication of the Third Edition in 1911, but, in spite of additions, the size of the volume has only been increased by forty pages. This comparatively small increase of size has been obtained by omitting such operations as Chopart's and Pirozoff's amputations, and we fully expect in future editions to see the last of the six pages describing Lisfranc's amputation, and one or two others that are now almost obsolete. The book is what it pretends to be—a handbook, to be used when preparing for an examination in surgery.

Organic Substances, Sera and Vaccines. By D. W. CARMALT-JONES, M.D. (Oxon.), F.R.C.P. (Lond.). 393 + viii pages. Published by Messrs. Heineman (Medical Books), Ltd. *Price 15s. net.*

IN writing this book, Dr. Carmalt-Jones, a distinguished pupil of the Wright School, has been guided by an aphorism of his master. The aphorism runs: "The doctor feels himself left in the lurch when he is not warned off from trying experiments in treatment which a hundred others have unsuccessfully tried."

The book, then, aims at setting out not only the theories and postulates of endocrinology, organotherapy, and the uses of sera and vaccines, but also the definite practical experiences of many writers, and their end results. It is in this that the book

supplies the want expressed in Sir Almroth Wright's aphorism quoted above.

The book itself is divided into two parts, and it will be convenient to deal with each separately.

The subject of organotherapy is introduced in a statement of purely physiological facts concerned with the endocrine organs, and their application to pathological conditions affecting these organs. The several structures and their internal secretions are then discussed in a clear and concise manner. Each gland is subjected to a scrutiny of its histological structure and its physiological functions, with the evidences on which our present day knowledge is based, and the effects of pathological changes in the organ, with the practical results of treatment by a rational organotherapy.

There is, in addition, a section of much interest devoted to the methods of preparation of glandular extracts in use in Messrs. Parke, Davis and Company's laboratories.

Part One alone should be of incalculable value to the busy general practitioner.

Part Two, Vaccine- and Serum-Therapy, contains an excellent chapter on Immunity, in which current theories with their practical uses are freely discussed.

In discussing the specific diagnosis necessary before vaccine- and serum-therapy may be usefully employed, the author confines himself to those means which are available to the physician in general practice.

Vaccines and Sera are dealt with in an unbiassed manner, and where there are conflicting evidences, an attempt is made to present them in the manner most useful to the practitioner.

Every used vaccine and serum is dealt with in a thoroughly practical manner, and it is possible in a few moments to weigh the chances of success of these forms of treatment in a given condition, and to ascertain the doses necessary, and the commercial forms in which the products are put up.

The whole book, then, is essentially one for the general practitioner, and one which will be read with pleasure, and followed by increased efficiency in the therapeutic application of organic substances, sera and vaccines.

Prosthetic Dentistry. By THOMAS GOODHUGH. Published by Messrs. Baillière, Tindall & Cox. *Price*, 21*s. net.*

TO read a publication that contains original research, and is no mere compilation from previous works, is refreshing.

The author has dealt with the subject of prosthetic dentistry scientifically and has spared neither care nor energy in his efforts.

The chapter on natural articulation is a step in the right direction.

The section on dental porcelain is of interest.

A book of value to both student and practitioner.

FOUR BOOKS PUBLISHED BY THE SCIENTIFIC PRESS, LTD.

The Nursing Mirror Pocket Encyclopedia and Diary. Price 1*s.* 6*d. net.*

WE are glad to welcome such a useful handbook as the 1924 Edition of the Nursing Mirror Pocket Encyclopedia.

This little book deals in a conveniently small compass with all the requirements of present day nursing, and the fact that it is arranged in alphabetical order renders it a really valuable book of reference. Diagrams and tables are good and the subject matter well arranged.

How to Nurse Cancer Patients. By E. C. BARTON, R.R.C. *Price* 1*s.* 3*d. net.*

THIS little book compresses in an easy and readable form the most essential points in the nursing of Cancer patients.

Two other little volumes, published by the Scientific Press, containing brief and compact information are:

Massage in Fractures and Injuries to Joints. By OLIVE F. SANDS. *Price* 1*s.* 3*d. net*; and

Notes on Radiology for Nurses. By HAROLD WIGG. *Price* 1*s.* 3*d. net.*

A REMARKABLE CATALOGUE.

WE wish to acknowledge a little magazine issued by the well-known publishing house of Fisher Unwin, called M.A.B. (Mainly About Books), and to declare that of all such publications this and Jonathan Cape's "Now and Then," rank easily first. M.A.B. opens with a London literary letter full of interesting gossip about the newest books and their writers. The remaining pages, interspersed with numerous photographs, are devoted to generous but tantalising extracts from various books of fiction, biography, travel, science, etc., which have recently been published. The snares are well set, and it will be surprising if they are not responsible for a large number of happy victims.

Obituary.

W. D. Pitt-Payne.

IT is with great regret that we announce the death, which took place under particularly sad circumstances, of W. D. Pitt-Payne, the eldest son of Dr. W. Pitt-Payne, of 118, London Road, Bromley, on Monday, May 5th, a few days previous to his twenty-first birthday. Pitt-Payne was educated at Dulwich College, and entered the Hospital as a first year Dental student in the Spring Term 1921. Quiet and unassuming he had a particularly happy disposition which made him well liked amongst those who knew him. He had a strong sense of humour, and those who were his friends could not fail to be impressed by his unselfish nature and his keen interest in his work. We offer our very sincere sympathy to his parents and to his brother, L. Pitt-Payne in their bereavement.

Edward Kitchen.

EDWARD KITCHEN, son of Dr. Kitchen, of 82, Wickham Road, Brockley, died on the 6th May, 1924. We hope to publish an appreciation of this Student in our next number.

Correspondence.

Guy's Hospital Musical Society.

DEAR SIR,—As a result of the recent performances given in the Chapter House in St. Thomas's Street, the Musical Society has been able to hand over to the Nurses Cottage Fund the sum of £25.

The Committee wishes to express its gratitude to those who kindly responded to the appeal for funds at the beginning of the season; without that response the Society would have been hampered in its activities. Below is a list of the subscribers.—Yours etc.,

W. M. MOLLISON,
Hon. Treasurer.

23, Devonshire Place,
Upper Wimpole Street, W.1.
4th May, 1924.

	£	s.	d.
H. Cosmo Bonsor, Esq.	5	5	0
Major-General V. Dawson	1	1	0
The Duke of Leeds	1	1	0
Anonymous	1	1	0
Anonymous	0	2	6
Anonymous	0	2	6
Dr. Fawcett	1	1	0
Dr. Poulton	1	1	0
Dr. Symonds	1	1	0
Dr. Conybeare	1	1	0
Dr. Hunt	1	1	0
Prof. Pembrey	0	2	6
The Matron	1	1	0
Sister Out-Patients	0	5	0
Sister Patience	0	2	6
Sister Martha	0	5	0
Sister Evelyn	0	10	6
Sister Hobbs	0	5	0
Members of the Society	5	3	0
J. Magnus Redding, Esq.	2	2	0
M. E. Shaw, Esq.	2	2	0
E. C. Hughes, Esq.	2	2	0
Miss N. H. Bailey	0	5	0
W. H. Trethowan, Esq.	5	5	0
Lewin Payne, Esq.	2	2	0
W. Kelsey Fry, Esq.	1	1	0
E. O. P. Eason, Esq....	1	0	0
W. M. Mollison, Esq.	2	2	0
	£39	13	6

Notes from America.

DEAR SIR,—The team work employed by Dr. Crile and his assistants at the Lakeside Hospital in their thyroid surgery has been described too often to warrant a repetition. There are, however, many other points of interest in the work at Cleveland, and the following notes are intended to illustrate a few of them.

Perhaps the most striking thing is their liberal use of blood transfusions. Gum saline is never used. The basic factor in many grave surgical conditions is, according to Dr. Crile, a failure of internal respiration. The simplest example of such a failure of internal respiration is hæmorrhage, but the effects of infections such as peritonitis, of post-operative shock and of so-called post-operative hyperthyroidism are ascribed to the same cause. Failure of internal respiration means an accumulation of waste products in the tissues and consequently acidosis. Where the myocardium is healthy, there is no better way of stimulating the circulation than by a blood transfusion.

Vincent's tubes, which resemble Kimpton-Brown's but are smaller and more easily handled, are used. The citrate method is never employed. Babies are given blood through the internal saphenous vein at the ankle. This is found midway between the internal malleolus and the tibialis anticus tendon right down on the bone. By employing a transverse incision the vein is easily found, it is quite constant and often surprisingly large. The vein is entered by a small gold cannula which is attached to the nozzle of the Vincent's tube by a short piece of rubber tubing. Babies are given relatively more blood than adults, after a Rammsted operation a child of eight weeks received 160 c.c. the other day.

The condition usually referred to as post-operative hyperthyroidism is not, in Dr. Crile's opinion, due to excessive absorbtion of the products of the thyroid gland so much as it is a failure of internal respiration. Consequently when encountered or even anticipated a blood transfusion is given as the chief therapeutic measure. These patients are carefully distinguished from those whose symptoms are due to heart failure. The latter are not transfused but are treated with digitalis.

Tetany following operations on the thyroid gland is often only temporary and can be successfully treated with subcutaneous injections of 10 c.c. 25 per cent. magnesium sulphate, repeated if necessary.

The treatment of patients with hyperthyroidism and obstructive symptoms is a difficult problem. The choice lies between the Scylla of post-operative hyperthyroidism following a resection and the Charybdis of complete obstruction if there is much œdema following a ligation. The former is the course adopted here as a ligation if followed by obstruction would mean an emergency resection which would be almost certainly fatal.

Iodine is not used in the treatment of patients with exophthalmic goitre as at the Mayo Clinic.

In amputating the breast for carcinoma, Dr. Crile does not remove the muscles unless they are directly involved. He holds that as metastases are not found in the muscles, the prognosis is not improved by removing them. The breast, the fascia covering both surface of the pectorals and the axillary glands as high as the clavicle are carefully dissected out. This is rendered practical by having the arm at about 60 degrees to the side and strongly retracting the anterior axillary fold.

The skin incision employed goes below the axilla at its outer extremity curving round the side of the chest as far as the latissimus dorsi.

The advantage of this operation is that it is certainly less mutilating than the orthodox operation and is theoretically sound. But unless it can be shown quite definitely that the percentage of recurrences is not increased by its adoption this should not be permitted to outweigh the more important question of cure. Technically it does not appear to be as difficult as one would expect.

Carcinoma of the cervix is treated exclusively by radium and X-ray and better results are being obtained as regards cure even in early cases. Moreover there is not that 25 per cent. mortality.

In operating on young babies for congenital pyloric stenosis a high transverse epigastric incision is employed which at first exposes the liver. It is claimed that there is less likelihood of this wound breaking down. A transfusion from one of the parents is given as a routine in these cases so as to start the baby well on the way to recovery and to stimulate wound healing.

Amputations of the lower limbs must often be performed on subjects who are very poor surgical risks, and the choice of anæthesia is sometimes of vital importance. Here spinal anæsthesia is used and the dangers usually associated with it are circumvented in two ways.

There is some experimental evidence to show that if an animal be given a massive blood transfusion its circulation becomes independent of the vaso-motor centre and the medulla can be removed without lowering the blood pressure. As one of the chief dangers of spinal anæsthesia is from a great lowering of the blood pressure it is thought that this can be avoided by a preliminary large transfusion.

Secondly, novocaine, probably the least toxic of the local anæsthetics, is used. Two decigrams of the pure drug are put in a sterile beaker. About 30 c.c. of cerebro-spinal fluid are withdrawn and mixed with the novocaine which it dissolves. This solution is then slowly reinjected, moving the piston of the syringe back and forth so as to obtain a good dilution.

To conclude, the great principle which governs the successful treatment of all conditions is, as Dr. Crile is so fond of saying, to keep the initiative and hold it. Prevention is better than cure and a timely blood transfusion or tracheotomy than a hasty message to the next of kin.—Yours sincerely,

B. L. LAVER.

Cleveland, Ohio, U.S.A.

7th April, 1924.

Sport.

Guy's Hospital Rowing Club.

THE Annual Inter-Hospital Boat Race, Guy's v. Bart.'s, will be rowed on Tuesday, May 20th, at 5.30 p.m., at Putney. It is much hoped that Guy's men will turn out in force and give enthusiastic support.

Rugby Football Club Dinner.

THE Annual Dinner of the Rugby Football Club will take place at the Imperial Restaurant on Wednesday, May 14th. Tickets can be obtained from the Team Secretaries, price 8s. 6d.

It is hoped that all playing members of the Club will attend.

Guy's Hospital Golfing Society.

THE match played on April 10th against West Kent G.C. resulted in a win for Guy's by 6 matches to 4. The team was as follows:—

J. L. Glover, lost 3 and 1.
D. G. Brown, lost 2 and 1.
G. W. Gathergood, lost 5 and 3.
L. W. Cann, won 2 and 1.
J. H. Anderson, won 3 and 2.
C. W. Vesey, won 2 and 1.
I. A. Jackson, w.o.
J. A. Vernon, won 2 and 1.
F. W. Schofield, lost 3 and 2.
L. J. Bardford, w.o.

The April Monthly Medal was played on April 10th, 1924.

Winner—G. W. Gathergood.

The Spring Meeting for Dr. Cameron's Prize has been fixed for May 21st, and will be played at Broxbourne.

The Competitions will be as follows:—

1. *Scratch play over* 36 *holes.*—Prize £1.
2. *Handicap play over* 36 *holes.*—Prize £2.
3. *Handicap play over* 18 *holes.*—Prize £1.
4. *Special prize for players with Handicap of* 14 *or over.* Handicap play over 18 holes.—Prize £1.

N.B.—The first three competitions are open to all players.

For prizes 3 and 4 players may enter either their first or second score.

No player will be allowed to take more than one prize.

Alterations of Handicaps.—

E. J. Pye-Smith, 11 to 9.
J. P. Evans, 15 to 13.
J. Barlow Schofield, 16 to 18.

Further fixtures are:—

Staff v. Students, May 18th.
Dr. Cameron's Prize, May 21st.
Match v. Broxbourne G.C., May 25th
Match v. Shirley Park G.C., June 1st.

Broxbourne is reached from Liverpool St. Station; the fare is 2s. 3½d. return.

Further information can be obtained from the Honorary Secretary.

Pass List, Hospital Information, etc.

Pass List.

Conjoint Board.

Final Examination.

April, 1924.

Medicine.

*I. M. Hurwitz.
*A. Jowell (1).
G. A. Martin.
H. J. Fuller.
*H. N. Hearle.
*J. F. Goodenough.
*M. B. Seng.
J. Sellick.
H. Lewis.
*E. F. Hewlett.
*H. G. Close.
*W. S. Hunt.
*A. T. Fripp.
*L. W. Cann.
*W. H. Bradley.
*R. J. Cann.
*K. O. Parsons.
*R. E. Robinson.
R. R. MacKenzie.
I. M. Benjamin.
L. F. Davies.
S. C. M. Davison.
S. A. Leader.

Surgery.

*I. M. Hurwitz.
*A. Jowell (1).
C. K. Colwill.
*A. T. Fripp.
*L. W. Cann.
*W. A. Mill.
*L. W. Houghton.
J. Gray.
*A. Tom.
*J. F. Payan.
*J. N. Alexander.
*H. B. Flooks.
J. J. Laws.
A. S. M. Douglas.
A. Canard.
G. H. Pitt.

Midwifery.

G. A. Martin.
F. M. Newnham.
H. J. Fuller.
J. Sellick.
H. Lewis.
M. F. Butler.
R. A. Grant.
E. H. J. Berry.
P. B. Skeels.
E. Sorabjee.
H. M. Worth.
D. F. Johnstone.
F. W. Schofield.
C. F. Morrison.
R. G. Nethery.
R. A. M. Dyke.
A. Elliott.
S. Cieman.
R. A. Norman.
J. C. Young.
D. A. Skan.
F. H. K. Knight.
L. R. Jones.
I. P. Spurrell.
W. K. Targett.
B. E. Hawkins.
R. G. Williams.
A. A. Dalby.
H. J. Selby.
G. W. Murray.
A. W. Riddolls.
A. C. Hampson.
A. B. Plant.
V. L. Fisher.
D. G. Grant.
D. R. Martin.
J. D. S. Thomas.
H. H. Steadman.

*Have now completed the Examination.

2nd Examination.

March, 1924.

Part I.

Anatomy and Physiology.

C. B. Picken.
J. G. Goodman.
J. H. de Jager.
J. L. Glover.
M. Shaw.
*R. Maneschewitz.
*H. S. Gaussen.
†A. G. Ensor.
†J. N. Martin.
†E. C. Grant.
†C. J. Wylde.

*Anatomy only. †Physiology only.

March, 1924.

Part II.

Pharmacy and Materia Medica.

R. V. Cookes.
B. M. Francis.
I. M. Kellough.
D. A. Newberry.
D. W. C. Northfield.
E. G. Smallbone.
T. I. Williams.
F. Widlake.
P. Berry.

1st Examination.

March, 1924.

Chemistry, Physics and Elementary Biology.

*†G. E. Payne.
†K. S. Fitch.
*†‡R. L. Frost.
*†E. Lethem.
‡E. A. R. Berkley.
*S. T. Williamson.
†R. S. Thomas.
‡H. A. Clarke.
‡C. E. P. Davies.
‡E. Fulford.
‡A. H. Herbert.
‡G. J. Horton-Parr.
‡W. J. Johnson.
‡W. L. M. Bigby.
‡R. F. Pritchard.
‡F. C. Tomlyn.
‡V. W. L. Wells.
*†C. E. Walters.

*Chemistry. †Physics. ‡Biology.

Pre-Medical Examination.

Chemistry and Physics.

*†C. L. Stevens.
*†W. McGraves-Morris.
*C. W. Harrison.
*R. J. Tierney.
*†G. J. Douglas.

*Chemistry. †Physics.

L.D.S.

Preliminary Science.

Chemistry and Physics.

*H. E. S. Collingwood.
†P. W. Binsted.
W. A. Corry.
L. R. Rowlands.
P. S. Turner.
G. G. Thwaits.
R. F. Keet.
H. A. Ginn.
C. J. C. Siggers.
A. Isaacs.
W. Holgate.
J. E. Willett.
C. N. Howitt.
†G. N. R. Jones.

*Chemistry only. †Physics only.

Conjoint Board.

D.P.H.

May, 1924.

E. Hardy.

Change of Address.

A. B. Aldred, 88, Park Street, Grosvenor Square, W.1. 'Phone: Mayfair 2024.

Arthur Miller, 1, Telegraph Street, Moorgate, E.C.2. 'Phone: London Wall 4078.

H. Douglas Smart, 172, High Road, Salway Hill, Woodford Green, Essex.

F. E. Hutchinson, J.P., M.R.C.S., L.R.C.P. 49, Pleasant Road, Upper Hawthorn, Victoria, Australia.

C. S. Lane Roberts, F.R.C.S., 20, Upper Park Road, Hampstead. 'Phone: Hampstead 3100. Also 64, Harley Street, W.1. 'Phone: Mayfair 6637.

J. J. Conybeare, M.D., 152, Harley St., W.1, and The Warden's House, Guy's Hospital. 'Phone: Hop 5300.

R. D. Passey, "Middlefield," Haywards Heath, Sussex.

Papers by Guy's Men.

H. W. Barber, M.B. (1) Case of Lichen Nitidus (Pinkus) or Tuberculide Licheniforme et Nitida (Chatellier). (2) A Rare Lingual Condition. (3) Case for Diagnosis (? Parapsoriasis en Gouttes). (4) Case of Rheumatoid Arthritis, Old Endocarditis, Tubercular Peritonitis, and Papulo-Necrotic Tuberculides.—Proc. Roy. Soc. Med., xvii., 1924, Sec. of Dermat., p. 39, 40.

G. B. Dowling, M.D. (1) Case of Lupus Erythematous of Lower Lip. (2) Parapsoriasis Guttata.—*Ibid.*, Sec. of Dermat., p. 52, 53.

Sir Charters Symonds, Sir Maurice Craig, and Others. Discussion on Post-Operative and Puerperal Mental Disorder.—*Ibid.*, Sec. of Medicine, Neurology, Obstetrics, Psychiatry and Surgery (Joint Meeting), p. 2, 10.

A. P. Beddard and Others. Discussion on The Uses and Limits of Vaccine Therapy.—*Ibid.*, Sec. of Medicine, Pathology, and Therapeutics and Pharmacology (Joint Meeting), p. 5.

C. Worster Drought, M.D. (1) Case of Tumour of the Acoustic Nerve. (2) Case of Friedreich's Ataxia with Double Optic Atrophy.—*Ibid.*, Sec. of Neurology, p. 28, 29.

G. H. Hunt, M.D., F.R.C.P. The Treatment of Functional Disorders of the Heart.—*Lancet*, 1924, i., p. 717.

G. W. de P. Nicholson, M.D. The Biological Significance of Pathological Changes.—*Science Progress*, xviii., 1924, p. 578.

C. P. Symonds, M.D. The Pathological Anatomy of Disseminated Sclerosis.—*Brain*, xlvii., 1924, p. 36.

Arthur Bulleid, M.R.C.S., L.R.C.P., L.D.S. Items of Bacteriological Interest to the Dental Surgeon.—*Brit. Dent. Journ.*, xlv., 1924, p. 552.

Grant Massie, M.B., B.S., F.R.C.S. Notes on the Diagnostic Value of X-ray Examination in Traumatic Intestinal Rupture.—*Lancet*, 1924, i., p. 895.

W. M. Mollison, M.Ch. Case in which the Chorda Tympani (?) is Easily Visible.—Proc. Roy. Soc. Med., xvii., 1924, Sec. of Otology., p. 71.

H. G. R. Canning, M.R.C.S., L.R.C.P., L.D.S.Eng. Some Observations on Post-Extraction Hæmorrhage.—*The Practitioner*, March, 1924, page 162.

Appointments.

J. F. H. Stallman, M.B., B.S., F.R.C.S., Surgical Registrar to the London Temperance Hospital.

W. Norwood East, M.D. (Lond.), M.R.C.S., L.R.C.P., Medical Inspector, H.M. Prisons, England and Wales.

Publications Received.

M.A.B., Archives of Medical Hydrology, The Gownsman, The Isis, The Dental Record, The Prescriber, The Nursing Times, St. Bartholomew's Hospital Journal, The Antiseptic, The Medical Journal of South Africa, The Journal of Cancer, The New Cambridge, St. Mary's Hospital Gazette, The British Journal of Dermatology and Syphilis.

Specialities.

Another "Acoustique" Innovation.

THE new "Acoushelle" consists of material which lends itself particularly for acoustic purposes having the effect of softening sounds. It is non-inflammable and practically unbreakable. The whole aid is small, portable, inconspicuous, and compact and can be regulated by the user for near and distant places. It is the only aid of its kind—invented by Mr. Dent and of British manufacture.

There is also a special auditorium set for fixing in Church Pulpits, Theatres, and other public places. This can be used by 1 to 100 people and the best results are obtained by the transmitter being placed in the pulpit and each person has his or her own ear-piece which can be adjusted to suit the individual case—this can be used with the Non-head-attachment, which leaves the hands quite FREE.

It is specially constructed and is entirely different from anything else that has ever been put on the market.

All these specialities impress one by their naturalness and by the fact that they really do what they claim in correcting the defect and helping the deaf to overcome their disability.

The Lancashire and General Assurance Co., Ltd.

8, BUCKLERSBURY, QUEEN VICTORIA STREET, E.C.4.

THE Lancashire and General Assurance Co., Ltd., have drawn up an Indemnity Policy specially for Medical Men, taking all risks.

This should prove a great opportunity as the terms are moderate.

The Company also offers advantages in all Departments, including Fire, Sickness, Accident, Motor Insurance, etc.

Special privileges and concessions are given on these points also to Medical Men.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

Birth.

DOHERTY.—On the 25th April, 1924, at a Nursing Home, to Helen, the wife of J. W. Doherty, of 55, Hampstead Way, and 140, Harley St., W.1., a daughter.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *May 24th, 1924.* *Number 936*

PASSIM

ANY medical journal of standing would disclose a very poor spirit of gratitude did it not constantly keep before its readers the obvious but oft-forgotten fact that the greatest part in medicine is played by the nurses. In their hands is the salvation of almost every patient. It is the nurse, who soothes, heartens and encourages them in their afflictions, just as it was a nurse, who coaxed, guided and educated them in their childhood.

We have always entertained the most profound reverence for our own particular nurse and, living constantly in the light of the great truths that she disclosed to us so free-heartedly, we now urge her before the admiring gaze of the public, as once she urged us. These great truths were given to us in parables of færy imagery, where the evil passions made mischief as gnomes and hob-goblins, the wayward moods enticed like pixies and brownies and the virtues walked nobly as princesses and princes, the latter always bearing a remarkable likeness to ourselves. In this way did our nurse, prompted by Hans Andersen, teach us the joy of living and show us our duty towards God and our neighbour. It was her one gift to bestow—a gift of inestimable worth—and happy are we, who can pass on a portion of it, however small. Open your hearts and receive just one jewel from this casket, the jewel that is above all others beyond price, the secret of human happiness.

There is a story told of a king, who, when suffering from extreme melancholia, sent for his kingdom's wisest man, the court physician, and learned from him that his only salvation lay in the donning of the shirt of a happy man. Happy men in those good old times were as rare as they are to-day and when at last one was found he had no shirt. That little story has many interpretations, none of which satisfactorily explains the deep-seated well of happiness in the shirtless. On a cold day any averagely quick-tempered person would need a shirt, on a hot day he would despise it, but the happy man was unconscious of the very existence of shirts. In fact it is more than probable that he had no actual perception of his own existence at all. The slings and arrows of the outrageous present turned blunted and harmless from the shining armour of his flawless philosophy. He lived in the past, he revelled in the future and lolled away his life on the countryside, as poor and happy as a man might be; but for the passing moment he had nothing but laughter. No present annoyance could penetrate this strong defence until it was past, by which time it had become too shadowy and absurd to annoy any longer. Yet this happy man, with all his advantages, was less serene than the happiest creature in the whole wide world, who was a woman. This is her history.

Once upon a time, so told our nurse, there was a princess of transcendental beauty, so that every youth who saw her, was wont to cry "lack-a-day," and wish he might die. Under these conditions, aided by the attentions of the son of a neighbouring king, complications quickly arose and the princess was im-

prisoned forthwith at the top of a terrible tower. This tower had neither doors nor stairs and the only windows were in the chamber at the top, where the princess was to remain until she consented to marry someone not the neighbouring king's son. Unfortunately this delicious little story did not end with the princess in that enviable situation; her lover visited her regularly by the old-fashioned method of scaling the flowing tresses of her wonderful golden hair. But for us the princess has always remained high above the rest in an ecstacy of happiness, viewing life as it was meant to be viewed from a little distance and impersonally. No little momentary vexations marred her quiet contentment and, looking down on the restless world, she spent her time giving thanks for beauty rewarded and enjoying to the full the society of her fellow creatures.

This is no paradox. Of all the false, vulgar, literary sensations, from which we would be preserved, the basest of all is the paradox. It is the anchor of the unimaginative, the panorama of the myopic. It is the prostitution of truth, it is the uglification of the pure. On a recent railway journey, when, owing to the holiday season, we were forced to dine on the train to avoid standing, we sat facing a paradox. She was a lady, young, demure and beautiful and she was dressed—how can we tell you? No modern frock outraged her glorious girlhood; she had stepped on to the train not from the Euston platform but from the heart of the seventeenth century. She was a Puritan maid in a rich brown gown, collared and cuffed with the whitest linen, and her downcast eyes and loving mouth found no counterpart in the rattling, shaking epitome of the twentieth century. We closed our eyes to shut in this glorious vision, and in our day-dreaming quickly installed her as châtelaine of the editorial castle, a castle buried deep in sun-kissed woods, where, in the old-world garden beneath the new-leaved chestnut, she would work at her tambour or read soft passages from Herrick and Matthew Prior. . . . And when we looked again, she was drinking stout!

We repeat that we attempt no vain paradox when we affirm that to enjoy the society of one's fellow-creatures one must forego it. An actor on the stage sees little of his fellow-actors, but once he has broken from them and reached the critical altitude of the gallery he can look down on them with appreciation and, for the first time perhaps, understand them. The greatest human emotion is the craving to be understood, but only those, who disassociate themselves from their fellows, can understand them! The true philanthropist ignores the present and looks down on the crowd.

Looking down on the crowd has long been one of our favourite pastimes, and we have indulged it ever since we first discovered a suitable watch-tower within easy reach of the Hospital. This modern substitute for Goldilock's prison is the window-seat of the railway refreshment room. There, under pretence of taking tea, we are able to look down on the nation's workers hustling and bumping each other to their respective platforms between the hours of five and six. The majority of them run. There is no desperate cause for this haste as, having run to the train and scrambled into a seat, they recover their breath long before the train is due to start; but the running does not appear to be voluntary. They are goaded to it by some unseen force, some superstition. That this force actually exists was made clear to us one day while looking down on the crowd. A city clerk, elderly and of dreadful respectability, for the seven-thousandth time in his life purchased his evening paper at the bookstall and turned to run to his platform. For once he was foiled. He was hemmed in by a ring of clerks, all buying evening papers, and in no direction could he move faster than at the slowest walk. For a moment he seemed dazed as he gripped his paper and umbrella with a fervour that was almost a prayer, and then, as if goaded into action by some fearful, irresistible force, *he went through the motions of running.*

"Passim" is the lightest of pages in current literature. It fits airily hither and thither like a bee in a clover field, sipping up all that is sweet to form a store that is wholesome. And this week, like a bee from our nurse's bonnet, it has gathered up and cemented the fragments of the jewel of perfect happiness. For nothing can mar the content of him, who, when given cause for anger or despair, will pause to wonder how it will effect him that afternoon or to-morrow or next week. Most of the happenings at which man takes offence become causes of laughter if not of compliment, when viewed impersonally and from the future, while the treadings on the toes of men are nearly all contrived by those who are doing nothing more constructive than going through the motions.

On Tuesday, May 5th, Professor K. F. Wenckebach, of Vienna, gave a clinical demonstration in the Anatomical Theatre. The Theatre was crowded with a most attentive audience, in whom the Professor's clear reasoning and brilliant gift of discourse aroused considerable enthusiasm. Discussing three different types of cardiac disease, Dr. Wenckebach demonstrated the symptoms and explained their etiology so skilfully that he made his subject appear as simple as it was fascinating. This was a most welcome visit, and we hope that Dr. Wenckebach takes with him from Guy's memories as happy as those we bear of him.

We congratulate R. Hale-White and E. Wornum on being elected respectively President and Treasurer of the Residents. The Presidency of the Residents is no sinecure. To qualify, he must have a quick eye and a heavy hand, and a complete indifference as to the ultimate composition of his soup, no matter how clear it was when first served to him. But there is this compensation: he can rest certain that his companions are all well-bred.

Unusual interest is being taken in the Hospital Athletic Sports this year. The arrival of two new sprinters, who are determined to rob C. L. Steyn of the Clement-Lucas Cup, makes the competition the most open since the war. E. A. Hutchinson has already broken one record this year, throwing the discus one hundred and four feet in the University of London Sports, in which Guy's ran University College very close for the Rosebery Cup.

Another Sports Meeting for an object which will appeal to all readers of the Gazette, is that to be held in connection with the Pageant of London (South of the Thames), on May 29th, in aid of King's College Hospital. There are two events open to all hospital students in the London area, one being 100 yards scratch, the other 440 yards scratch.

All the Athletic Clubs have started well. The Nurses have won their first round in the *Nursing Times* Tennis Cup; the Swimming Club have beaten "The Shop" at all events except the Diving; and the Hospital Eight entered at short notice has carried off the Allan Cup in the University of London Regatta.

The Annual Meeting of the Guy's Hospital Ladies' Association will be held in the Court Room on Tuesday, May 27th, at 3.30 p.m., Dr. Fawcett has kindly consented to take the Chair. Any ladies interested in the work of the Association will be heartily welcomed at the Meeting and afterwards at tea in the Nurses' Home.

Obituary.

DR. JAMES ALEXANDER FRASER.

It is with the deepest regret that we announce the death of an old Guy's man, Dr. James Alexander Fraser, who has recently died at his home in Romford. Dr. Fraser was born at Mauritius, on December 11th, 1854, and was educated at Blackheath, Merton College, Oxford, and Guy's Hospital. He qualified in 1883, and then went into partnership at Romford, where he gradually built up a large practice. In addition to his private practice Dr. Fraser was Medical Officer to the Romford Guardians at the Workhouse, and later, when the Scottered Homes of the Union were opened, took charge of the physical welfare of the children.

Dr. Fraser was one of the best-known medical men in Essex. He was a keen Rugby man, playing both for Blackheath and Guy's, and when at last he had to retire from the game still took a lively interest in junior sport. Dr. Fraser had a wonderful personality, and great sympathy for those in distress, in whom he never failed to inspire confidence. One of his numerous friends writes of him, "I always found him one of those it was a great pleasure to meet, never down-hearted and with a cheery smile ready to give to any one who was down on his luck." The loss of such a fine character as Dr. Fraser's is greatly to be lamented. He leaves two daughters, to whom we extend our deep sympathy.

The Light Side of a M.O.'s Life in the Army.

By FRANCIS HEATHERLEY, F.R.C.S.

(*Continued*).

Sergeant Blotter's case reminds me of my repeated failure to persuade C.O.'s to encourage or at least allow the game of Poker to be played in the mess.

I consider Poker the military game of cards. A good Poker player's face is a most valuable asset, and worth every penny it cost the officer to acquire it. It is of little use for an officer in a tight corner to try and give the men the conviction that he has the situation well in hand whilst they note the twitching of an anxious face and the hands that tremble too much to be able to light a cigarette. Many a battle, when by all the rules it was lost, has been won because the men didn't know they were beaten, but went on to victory.

This is the main reason why actors usually make good officers. As a training in facial control Poker is well worth the expense, and, as I believe Lord Roberts also held, a khaki shirt exposed on a line to three days' sun and rain is as effectually purified as by going to the wash.

A month or two later at breakfast the adjutant, a leading solicitor in private life, cheerfully informed me that he had a nice little perjury job for me. The War Office in sudden panic had ordered all bands to be broken up and all members fit to shoulder a rifle to be returned to the ranks. As ours was one of the best brass bands in the kingdom such a thing was unthinkable. He said, "You know you have always preached of the importance of a good band. Now is the time to demonstrate your belief. It has taken years to achieve its present position and, of course, in a few months' time, when irreparable ruin has overtaken it, the War Office will say we must have a band." I calculated that the job involved twenty-eight men, but the adjutant, with a grin, said that there were thirty-six and that the C.O. was sure I could save them. I said it was too tall an order and besides on that scale it became inartistic. I said, "You are up in case law, why not quote the 'Mikado?'" As he did not take me, I said, "Why not do it yourself with the stroke of a pen? Their execution has been ordered, why not reply by saying that it is now taking place?" I never heard what actually took place, but the band continued to play during dinner for as long as I was attached to them.

As in civil practice, you will find waves of fashion unduly influencing procedure in the army. At one season men will be rejected for little blemishes of which even they themselves are unaware, at another, even men dying on their feet will be refused their discharge.

One of my C.O.'s became very angry at the way drafts from his unit, appearing for their last examination by a Medical Board after I had passed them as fit, were decimated because of slight blemishes. It broke men's hearts and led to desertions, and finally the C.O. appealed to me for help, and I suggested that he should apply to the A.D.M.S. proposing, because of his dissatisfaction with their decisions, that I should be added to the Board on account of my personal knowledge of the men.

After that it was plain sailing, because by previous enquiry I had found out the way the Board proceeded and soon saw how the thing could be worked. The Board did not act together, but each of the three sat at a separate table and examined the man sent to him. The sergeant in charge of our men stood at the door of an inner room in which the men undressed and sent a man to whichever doctor was free. I previously picked out about a dozen men in whom there might be a risk of rejection and placed them under his wing with orders only to send one of these in when I wanted one. So, although the stream of shivering wretches came in apparently fortuitously, as a matter of fact only the doubtful cases were to come to me. As a result only three out of sixty were rejected, and as two of these had, through their own stupidity got into the wrong box, they were easily consoled by the promise to go with the next draft. Better still, the A.D.M.S. came to the conclusion that in future I could be depended on to examine the men myself.

As you will see, it is not always easy in the army to keep a man at the job for which he is best suited, conversely it is sometimes equally difficult to obtain the discharge from the army of a man who is absolutely unfit.

You may be shocked at the various disguises under which the truth has to be paraded for the sake of the service, but occasionally your task may be lightened by approval from above.

For instance, on one occasion one of the cases I paraded before a distinguished surgeon-general for his recommendation for discharge was a wretched-looking little man who, in childhood had managed to escape with his life from an extensive burn. As a consequence of scar contraction one leg and one side of his trunk were covered with large varicose veins curling in all dircetions.

When he saw the man stripped, the general was shocked and angrily ejaculated that the doctor who passed him into the service ought to be shot.

So I felt quite disappointed when he continued that he could not recommend his discharge on my report. There were several difficulties, the chief one being that according to the report the man's condition was no worse than when he enlisted so that there would be no satisfactory answer to the awkward question of why this man had been kept in the army for ten months at the ratepayer's expense when except during his first week he had never been on parade. Of course it was a scandalous waste of money and he quite agreed that the man must be discharged as soon as possible, but that I must draw up a fresh report on him in which no holes could be picked.

Looking at me and tapping the report with his forefinger he said: "A fresh AF 179, much fuller in detail, of course nothing absolutely untruthful; I think we may take it for granted that the man is mistaken in thinking he is no worse, and above all underline all the prominent features of the case, *underlined*, if I may use the term."

So next day I sent for this man and said I supposed he would like to get out of the army. He said he certainly would so, as he was sick of being kicked about and doing nothing.

"Very well," I said, "I am writing out a fresh report on your case and I want you to know what I am putting down about you so that you can corroborate it." "Very good, sir." "You know what corroborate means?" "No, sir, can't say as how I do exactly." "Corroborate means that you say ditto to what the report says." "Now in the first place the veins in your leg are getting much worse." "Oh no, sir, they was getting worse, but the M.O. before you he gave me a chit to excuse putties and that saved 'em." Looking at him with a smile I said "you're a liar, they are a lot worse." "Oh, very good, sir." "Now this brown patch down here, this is where you have had ulcers." "Come, come, don't lie, my boy, you know that Swedish drill used to turn it into running sores." "Oh, very good, sir." "Now," I said, "you once nearly lost your life through one of the veins busting." "Oh, no, sir, none of them never busted, though I've always been afraid of it." "Now look here boy, I'm trying to help you, but if you aren't ready to say ditto you'll probably finish up in the army with a military funeral in twenty years time. So pull yourself together and sharpen your memory."

"Listen to this: one day coming back from a route march in the rain you felt something warm trickling down your leg and one of your mates noticed the blood oozing through the puttie. Now remember this. See this little round scar above your ankle, that's where the blood came from, no big ulcer, just a little round hole, pints of blood, boot full of it. The M.O. said he was just in time and blew the corporal up sky high for tying a handkerchief round your thigh." "I think that will do. Now we'll go all over it again because if you don't remember it you'll never wear civies again."

I don't know what else the general might have included under his definition of underlining, but the report as amended did the trick.

One of the things on which you will be judged will be the size of your morning sick parade. An habitually large sick-parade and an habitually small sick-parade are both evidence of a poor M.O.

Of the two I should say an habitually small parade is the worse. It means that the M.O. to keep in with the C.O., and at the same time lighten his labours, returns nearly all the men as fit for duty without troubling to examine them properly. This is the M.O. who gets epidemics in his camp and who at other times boasts of giving the men filthy concoctions to keep them away. In such a battalion things

go wrong because decent men are afraid to consult the M.O. and will not complain till they are so ill as to prejudice their chances of recovery.

An habitually large sick parade is the adjutant's abomination, as it interferes with the work. Generally it will mean that the M.O. is an old woman—fair game for every malingerer, though I have met with an exception, and as I don't profess to be methodical, I will digress for a moment.

I came across him in a large camp. The S.M.O. of this camp was a man of the name of Pills. He had charge of a field ambulance hospital of twelve beds of which more than four were seldom occupied, so that the S.M.O. often spent his afternoons in sleep if he couldn't get a game of golf.

On being suddenly transferred he relegated his duties to another R.M.O., although I was, in fact, the Senior, and this man, presuming on my previous good nature in several times doing his work when he wanted to get away, recommended that I should take over his battalion as well as my own. I naturally objected to doing his work as well as my own in order to enable him to spend his afternoon in sleep. So I kicked. The D.D.M.S. on the occasion of the visit of a travelling medical board instructed the Colonel, as president, to enquire into the dissatisfaction, and so I came across my old acquaintance, Ointment, the exception alluded to above. After we had given our versions, he said to the President, "If there's any grousing to be done I should like to join in, sir. I have been invalided home with dysentery, recommended for light duty and find myself posted to a composite reserve battalion, the biggest unit in the camp." Thinking I recognised him, I said, "I can fully corroborate this officer's statement, sir; this unit is colloquially known as the muck-heap."

After the enquiry was over I approached him and said I heard him say that his name was Ointment, was he by chance any relation of Percy Ointment. He said he was Percy and after mutual recognition he said, "Tell me now did you know Pills the late S.M.O." I said I knew him and I didn't know him. "Aye, just so, I thought he was that particular kind of blighter. I was posted here on Monday, and on Tuesday morning I sent three men into hospital and he sent them back owing to some informality and sent me an insulting message, by word of mouth if you please. I told the grinning orderly who delivered it that I would attend to the matter after sick parade. After it was over I asked my way to his tent, looking in at our Orderly Room on the way to consult the Army List, finding to my joy I was his senior. Having found his tent I screwed my monocle into my eye and lifting the flap stepped in and said, 'Good morning. Your name Pills?' and on his saying yes, I said, 'I'll thank you in future when you have any complaint to make not to send me insulting messages by word of mouth, and I'll trouble you later on this morning to send the ambulance round for those men you sent back.'"

He blustered a bit and said finally "you don't seem to know who I am." Dropping my monocle to express surprise I said, "Didn't you say your name was Pills?" Then he lost his temper and said that he would teach me that this was not the way for me to speak to my S.M.O. "Pardon me," I said, "being your senior you automatically ceased to be S.M.O. on my arrival in camp last night at 7 p.m. Pray understand that in future all your communications with me must be in writing." Such was Ointment.

Later on in conversation with his orderlies I found out what they thought of him.

"A real gentleman, but a bit too soft with the boys. Now the M.O. before him, Mr. Newdegree, was quite different. He's at the front now; he never had more than about twelve at sick parade. He used to send six of them to hospital and Mr. Pills he use to send 'em back again. But Mr. Ointment, he generally went over the hundred every morning and he used to be real soft-hearted, especially over the bantams.

He used to say, 'Pore little blighter, he ought never to have been took from his mother.' But the funny thing was that the men he sent to Mr. Pills at the hospital was always took in though they weren't as bad as those that Mr. Newdegree sent in. He kept the hospital full.

He was a real nice gentleman; very quiet, but afraid of no one; why I heard him tell the C.O. one day in so many words he could go to a hot place for all he cared.

When he was tired he got dreamy. I remember one day they fired a big blast in the quarry behind the camp, and he said, 'Lift the flap and see where that one landed,' he thought he was at the front."

At first, in your management of sick parade be chary of excusing a man from duty, that is of entering him in the disposal column of the morning sick report as detained. At the most allot light duty and, as a rule, give them M. and D., medicine and duty. When you are first appointed all the "born-tireds" will flock to you like townsmen to a new pub. Examine each case carefully and enter the diagnosis and treatment in the hospital book, you will thus soon find which are the diddlers. Never mind what your orderlies seem to think of the time you take over sick parade.

If anyone seems to object, start the show earlier; you will always find the adjutant agreeable, as his ideal is a parade so early that not even an M. and D. man can miss any duties.

Take the trouble to try and learn the men's names; it is a knack that comes with practice and although it is a lot of trouble it is worth it, because you will always get more out of a man if you can call him by his name than if you prove ignorant of it, although he has passed through your hands for weeks. It counts in your favour, too, if the C.O. some day notices that you know more of the men by name than their own company officers do.

I well remember a most unpleasant scene when a C.O. presenting his officers to a General didn't know some of their names, although they had been weeks with him; you can imagine how hurt they must have felt.

Some M.O.'s carry things with a high hand, are impatient and bully and haze their men. You may swear at the defaulters, but I think that although the men prefer to be sworn at, the gentlemanly weapon is sarcasm. They hate it and try to avoid any repetition of it. Whenever you are about in the camp enter into conversation here and there. Ask if they are comfortable, and at meal times taste the food and ask if they are satisfied. You will thus get occasion for suggesting improvements and you will get to know the best men in the battalion who never go sick.

You should try to get the reputation of being the men's best friend, always ready to consider anyone's troubles however slight, but death on shirkers.

One man hearing that I was compiling a list of men for discharge said he would like to be added to it because the specialist had told him he was ruptured and unfit for service. I examined him and said he was not ruptured. "You misunderstood me, sir, what the specialist said was not that I was ruptured, but that I'm liable any minute if I should lift anything heavy."

I examined him once more and told him he must have gone to the wrong specialist, perhaps women's diseases. On this he adopted a most melancholy expression and said, "I'd like you to understand, sir, that I came into this world with a break, sir." "A brake?" I said wilfully misunderstanding him. "Good God, man, what more did you expect? Did you expect to come into the world in a motor car?"

Another man, a most unpleasant looking fellow, was very annoyed at not being excused duty on account of a bad back due to a strain and too much beer. Scowling at me as he left the table he said, "And is that all you can do for me, sir?" I said, loudly, "All that I can do for you? Listen! I've ordered you medicine three times a day, most expensive medicine, too. You are to have half a pint of cold water one hour before every meal and at 5 o'clock every afternoon my man Watson, who's the champion clog dancer of the North, is going to massage your back, and yet you are not satisfied. I'll tell you what I'll do for you, my son, I'll wire to your mother to come and kiss the spot and make it well."

Remember that Sick Parade is a parade. Some M.O.'s make the men remove their caps; this I hold to be a mistake as it removes the distinction between them and prisoners, who are obliged to remove their caps.

Be particular, however early the hour may be, that you yourself are punctual and properly dressed and shaved, and then you will be in a position to deal with others.

Your medical corporal may be half dressed when you turn up. If it occurs twice tell him sympathetically that if he likes you will try and find him a lighter job. If the private orderly you are also entitled to have is missing or inefficient, your corporal is sure to know of a good man whom later on you can make his successor if necessary.

You will find that there is plenty of work in your department, and if, as often happens, you find that your assistants fancy they have found a soft job it is worth a little unpleasantness to get rid of them. But it is also well to be on with the new love before you are off with the old.

If a man comes to parade looking dirty and unshaved and inclined, as such a man usually is, to lean over the table in confidential discourse so that you get his beery breath, turn on him, make him stand to attention, feel his pulse to make sure it is nothing serious and then, telling him this is not the workhouse, dismiss him till next morning.

Remember that if you have occasion to blow up an N.C.O. never do so within hearing of his subordinates; strict attention to this will gain you credit.

A little knowledge of drill will often be of use. On one occasion finding myself confronted with the sick parade of another battalion, and very little time to spare, I made them fall in in lines about ten feet apart and then instructed them that those who felt unfit for duty were to stand still, that those who only felt fit for light duty were on the command quick march to take one step forward, whilst those who wanted M. and D. were to take one step backwards.

They were then marched off and halted in separate groups, and I managed to deal with those who considered themselves unfit and the next class before my time was up; the M. and D. men I left to the corporal.

I have found it a good plan to make the corporal at sick parade make out a list of men with the treatment against each, as otherwise you may find him quite capable of altering it. Also when practicable make the men come for their medicine in their spare time. For pills or tablets make the men provide an empty match box.

I have also found it a good plan to have short accounts in plain language posted on the wall as to the nature, prevention and treatment of muscular rheumatism and piles. These are both common causes of disablement, and to deal properly with each case by word of mouth would take too long.

Always try to have an assistant who can do massage. In my time when most of the higher posts in our service were held by men who, when they joined were the sweepings of the London hospitals, massage was not appreciated and my efforts were frowned at or made fun of.

If at first you are chary of giving men more than M. and D. you will find the parade dwindling day by day until it becomes of reasonable proportions. By being too sympathetic you run the chance of making even decent men think too much of trivial ailments. You may be sure that if the attendance falls off on Fridays and Saturdays that you have not yet attained your ideal. With your corporal make out a list of those who stay away on those days. You will find some of them gentlemen who fall ill before a route march. and when you have three or four of them, mark each of them with a capital D—duty on the sick report. It is then the duty of his company officer to punish him for reporting sick without cause.

I remember on one occasion a captain trying to get me into hot water with the C.O. about my sick parade, but the hot water flowed the other way when I was able to point out that owing to his slackness two men of his whom I had marked D. had not been dealt with.

Set your face against having a sick parade on Sunday. You can always visit a bad case and the corporal can give the M. and D. men their medicine. This will give you time to inspect billets, cook-houses, and any little things you cannot fit in on a week-day.

Never mind how large your sick parade is if you are sure there is excessive sickness, but look out for the cause.

In a slack battalion all shortcomings are put down to your leniency with the men and the ridiculous size of your sick parade. Do not lose your temper, but politely decline outside help in your own department.

One battalion I was attached to was rather slack at first. Several captains lived out with their wives. This was the first occasion I appreciated Lord Kitchener's reasons for preferring bachelors. Owing to the senior captain's slackness he got into trouble with the C.O. and laying as much of the blame on me as he could, he tried to improve on my method, which was to send O.'sC. companies a list every week of those who had been excused duty or given light duty during the week with a request that their recovery might not be prejudiced by week end leave. I found out by the men grumbling about it that he was also stopping all leave to those marked M. and D. So I interviewed him and found him to be offensively patronising and fully deserving his nickname of the "shop walker." I then saw the C.O. and finding him rather inclined to side with the captain, I explained to him that it was my function to prevent disease and that it was wrong to penalise men

who felt ill from consulting me, especially as it did not interfere with their military duties; that I looked upon it as a mistaken and serious interference and should have to report in such terms to the D.D.M.S. if it continued.

That stopped it, but after a short time I found one evening on going round the barracks that this captain had evolved a fresh plan of discouraging sickness.

You will find it a good plan to hold a check roll-call at various and unexpected intervals. Preceded by your corporal you enter a barrack room in the evening. On his calling out "Room, 'shun," the babel ceases and you order him to call the roll of men on light duty or excused duty; those who do not answer to their names are reported next morning.

On such an evening I found one detained man out of bed and was told he was away reporting to the guard-room. The men were rather indignant, believing that it was my orders that the sick were to report to the guard-room every half hour as if they were defaulters. The man in question came in just then shivering, so, whilst taking his temperature, I sent for the company sergeant major, and his explanations being diplomatically evasive I told him that as regards the management of the sick my authority was paramount and that if I heard of any more cases I would have him immediately placed under arrest.

Next morning I saw the C.O. about it, and he agreed that it was quite wrong.

Even this did not cure the "shop walker," for he next started the plan of making the light duty men report every half hour. Of course, the day after I found this out he found he had no light duty men to deal with, they were all detained.

Then I proceeded to overwhelm and smother him. There had been a week of snow with alternate frost and thaw, with a consequent epidemic of colds owing to the men being kept standing motionless on parade in the snow by the half hour, due to muddled arrangements. The other officers fell in with my suggestions to try and avoid this source of chills. Not so the "shop walker," and there came my opportunity. I discovered quick pulses and raised temperatures in lots of cases other observers would have missed. Every man with the ghost of a beginning of a cold was made much of and told to go back to his bed, wrap himself up in his blankets and not stir for anyone until visited by me. Now, men who don't feel very ill are not fond of lying in their blankets, but their captain was very unpopular, and they approved of my object and malingered to my orders. I heard with grim satisfaction that he swore considerably when on going round the barracks he almost tripped up over men lying everywhere. I paralysed his company for about three days and after that had no trouble with him.

(To be continued.)

Victor.

THERE can be but very few Guy's men who are unacquainted with the Hospital messenger.

A short time ago I met him early one morning in the Tube. "Good morning, Victor!" "Good morning, sir," he replied, then after a short pause he added, "There are not many left who call me Victor, most of them call me Mr. Andreoletti."

This reference to the passage of time set me thinking and I recalled my first sight of him some thirty-five years ago. A somewhat short man, clad in a dark cloak, wearing a silk hat and, most noticeable of all, a pair of shiny black leggings as a protection against the rain of an inclement January day. Attracted by his appearance, I asked Parsons, the porter at the Front Lodge who he was. "Oh, that's Victor, the hospital messenger," and "Victor" he has always been to most of us. Even then he had twelve years' service to his credit. Born in 1854, Victor Ernest Andreoletti, to give him his full name, commenced his duties on April 26th, 1877. Now after 47 years, failing health has forced him to send in his resignation, and a familiar and popular figure ceases to pass in and out of the Hospital.

Those who were present at the dinner of The Employees Association last autumn will remember the tribute paid to him by the Superintendent and the hearty endorsement of that tribute by all the members assembled there, and Victor deserved it.

We all wish him well. May he live many years yet to enjoy the pension he so justly deserves, the salubrious atmosphere of St. John's Wood, and the luxurious, draught-proof easy-chair his colleagues have presented to him.

M. F. H.

The Discovery of Blackfriars Bridge:

A SUGGESTED RAMBLE.

ON the morning of Boxing Day when many good men and most bad men in Southwark were in the throes of sleep my contentious Irish friend O'Connor met me by appointment in the Cathedral garden. Suddenly our comrade Albert Cheeseman appeared and our party was complete. Perhaps I should explain that O'Connor is a Roman Catholic and a keen Nationalist, while Cheeseman is an earnest Churchman and a true Englishman. Cheeseman was obviously depressed in spite of the sunshine. I ventured a question and he explained that he had been meditating on the distressing thought that no new society for the re-vitalising of the English Church or the galvanising of the English nation had been formed for 24 hours. This was too much for O'Connor, who snapped out "I care nothing for your Church or country." Here was an awkward situation—here was a quarrel which might quite easily make havoc of the morning. Occupying an elevated position in the centre of the crowd, I began a speech which had the desired effect; it changed the subject. In my first sentence, which meant nothing on earth, I pressed into service all the thread-bare clericalisms of the period. In perfect order I set them forth :—

"Unparalleled opportunity."
"The time is not ripe."
"Greatest crisis in history."
"Time of reconstruction."

They made no sense when strung together, but they served their purpose. O'Connor, now with face ablaze, said "Can't you come down to realities," and thereupon I did. The rest of my speech was quite coherent. I condemned O'Connor root and branch, and declared myself in favour of forming a new society. To restore the peace I suggested that we should mark the day by founding the Southwark League for the Discovery of London. Both members of the audience shouted their applause. We appointed ourselves officers of the League and agreed to serve in honorary capacities until we saw some opportunity of rewarding ourselves for conceiving a brilliant idea.

We had met for a walk. What part of London should we discover? O'Connor suggested "Lambeth," and it was carried unanimously. We agreed to hug the river as closely as possible and find the historic home of the Archbishop and study the interesting things *en route*.

The reader should remember that we were in the Cathedral garden. Before we started officially I insisted on my companions going into the Borough Market in order to see the fine old office front of 4, Green Dragon Court, which was recently imported from Middleburg in Holland and which bears the date 1663 in the pediment about the door.

Duly impressed we returned to our starting place and left the Cathedral precincts by the western gate. We went straight on down Winchester Street and then turned down Clink Street into Winchester Square. It was my turn to speak at last, and I rehearsed the history of the Palace of the Bishops of Winchester, which for centuries had stood round the quadrangle. Into that square a mighty cavalcade had ridden on the day Henry Beaufort arrived from France with the Cardinal's hat. With accustomed dignity I dealt with the relics of the Palace, which still exist within the walls of Pickford's warehouse, and my erudition was applauded. We crossed the square diagonally and passed an iron post leading into a little passage. This led us to Stoney Street. Cheeseman was a little surprised to find that the thoroughfare was not the resort of people even poorer than ourselves.

The Irishman explained that Stoney Street was the old stoney causeway which led, in ancient days, from Newington to the Thames. We stopped for a moment, looked up at the archway and saw old masonry *in situ*, which belonged to the kitchen of their lordships of Winchester.

Arriving at a narrow thoroughfare we turned to the left. O'Connor said "Clink," and Cheeseman, the ex-serviceman, started. To hinder explanations I took up my parable and said "Little is known of the ancient Clink Prison." "Nonsense, nonsense," muttered the Irishman, "yours is the ignorance of convenience." He then began to tell me tragic stories of the sufferings of his co-religionists

in the Clink Prison in the days of Queen Elizabeth. I expressed sympathy and said I would do what I could about it. The next time I met the good Queen in a country house I would take her aside and speak kindly but firmly. My indignation seemed somewhat one-sided so I just mentioned the name of Mary once or twice, but instead of rising to the occasion my Romanist friend let it pass and appeared to imagine that I had temporarily lost my reason.

By this time we had reached Bank End, where there is a house with an overhanging second floor and an inn known as "The Anchor." The river now came into view and we walked along gazing at the dome of St. Paul's, when we were suddenly pulled up by Cheeseman, who is by way of having an intimacy with a fellow countryman of his, one William Shakespeare. Outside a building on the bank which bears, very high up, the word NECTAR, our English friend mounted a wall facing the building and began his lecture on the "Shakespearean Associations of Southwark." Pointing to the word NECTAR he read a legend written just below, "1599. Here stood the Globe Playhouse of Shakespeare, 1613." "Nonsense, nonsense," murmured our contentious friend. "The Globe Playhouse was in Park Street." Cheeseman was equally emphatic that it was on Bankside. Only a threat from me that I would resign my chairmanship and return home restored peace. Both appealed to me to decide the vexed question and I told them they were behaving like children and that it wasn't really a vital matter at all. Shakespeare thus fell into a backwater and as we passed on I refrained from pointing out the little turnings on our left, Rose Alley, which marks the spot where the bard played at the "Rose" with Alleyn and under the management of Henslowe (two Wardens of St. Saviour's), and Bear Gardens, which commemorates the old bear pit and the home of Shakespeare when he was playing at the "Rose."

Religion and topography had tended to separate two good men, and the future of the Southwark League seemed to be in peril, so I decided to strike a new note. "I wonder what the new Government will do about Housing," I said. This restored unity, and for thirty minutes we considered the problem at close quarters. We kept on the bank and passed Emerson Street and, between 49 and 50, Bankside, Cardinal Cap Alley. Here we accosted the only living thing we have seen since we left the Cathedral. He gave the inhabitants a very good character and suggested we should ramble through the Bankside Courts. Here was a new experience for the Treasurer and Secretary of the League. Basking in their comfortable homes they had never dreamt of the joys of the Courts. The policeman pointed to Moss Alley, a narrow passage going off to the left, and we passed along. The good people were still in bed, so no taunts were hurled at Cheeseman's white spats or the Irishman's diamond scarf pin. We kept straight on until we came to a street. It was Park Street, and we walked over to number 93 and surveyed the landscape.

"So this is London," sighed O'Connor, who had never seen the back streets of Dublin. "This is the failure of civilisation," urged the Englishman. It was a sad sight. We were looking upon several empty and decayed houses—empty at a time when in Park Street's inhabitated houses there is at least one case of a father and mother, three big lads and one growing girl living, sleeping, washing and feeding all in one room. Long before I knew Southwark the front of number 78 fell out and is still displaying its nakedness. Still facing Moss Alley and looking to the right we noticed Huth's fur factory, which was originally the chapel of C. H. Spurgeon when a young man. The whole scene distressed my comrades and we walked westward along Park Street till we came to a corner. Here we caught sight of the Queen's Head, to which we went. Determining to give my fellow members a full experience I led them up a passage behind the public house and laid bare the mystery of Wagstaff Buildings. To find a row of little wooden houses in the heart of London was more than my friends had bargained for. The court was very narrow and very dark. It was nearly mid-day and the good people were showing signs of movement. One man was at his door putting on that which does service for a collar in Wagstaff Buildings. I explained our errand and he thought perhaps we should like to see his wooden castle. Up creaking steps we climbed and came to a bedroom with nothing in it but a bed. "This was the room in which Shakespeare's leading lady used to sleep," said the occupant. We had all been carefully brought up by mothers who taught us not to contradict our elders, so we let the state-

ment pass, but we couldn't fail to remember that no lady took part in a Shakespeare play until the great man had been dead 70 years. Personally, I doubt whether the houses in this narrow court are more than two hundred years old, and I trust they will not exist much longer. We retraced our steps and went up Noah's Ark Alley by the Noah's Ark Public House almost opposite. In a short time we reached Taylor's Yard, bore to the left and then marched up White Hind Alley to Bankside, once more to gaze at the majestic form of London's Cathedral.

Turning to the left, we kept as close to the river as possible, and eventually reached the building of the London Hydraulic Power Company on the right-hand side. Here we read an inscription high up on the wall:

1907.

The house formerly on this site was frequented by Sir Christopher Wren, thence he watched the building of St. Paul's Cathedral.

This notice recalled that melancholy period in English history when Wren was deposed from his office as architect of St. Paul's by the Philistines of the City. In those days he would come over to Southwark and watch men setting stone on stone till they had completed the great monument.

Resuming our walk once more we eventually came to the opening of a subway over which was a notice to the effect that it was open from 5 a.m. to 8 p.m. Cheeseman, who had been strangely silent since his duel with O'Connor, now made a fresh start. Through this subway, he told us, an English cashier used to carry a bag containing piles of gold Friday by Friday. Many years ago "some Irish ruffians—." He never finished his sentence. O'Connor sprang at him like a lion, and, but for my intervention, there would have been a second murder here. I expressed my horror at such conduct during the season of peace and goodwill, and moved that the Southwark League for the Discovery of London be wound up. The Englishman put the direct negative, which I allowed, and the Irishman seconded.

Correspondence.

A Case for Diagnosis.

[We have received the following letter, which was sent to Major C. H. Reinhold, I.M.S., Civil Surgeon, Meerut, India.—ED.]

The Civil Surgeon, Meerut.

SIR,

Most humbly and respectfully I beg to bring the following for your information and you will treat me with your generosity and gain the satisfaction of saving a human being who is quite destitute from untimely death.

According to your instructions I have been to several Raises of the place but nobody takes interest in me they, one and all, say that as I have fallen ill while in Government service I should be treated at Government expense.

Now I detail a few of my ailments for your information. I am nearly dead, I feel very bad when lying or sitting, am unable to walk or do anything.

Twice previously I could not speak once a person gave me DHATURA in BHANG and after that I could speak after 6 months. Another time I got cold and influenza and my brain was drained. Blood came out through my nose and mouth and after that I could talk after 6 months.

Now I see nobody except you to appeal to. If I am given milk and sago I think I may be cured. I feel I am dying through dryness and feel as if something is scratching inside.

After eating salt and other things I feel as if knives are scrapping my flesh and I feel very weak. At the same time I feel awfully hungry and pass too much urine. After passing urine I feel awfully weak. I believe there is no cough (Balgam) in my body. Whenever there is cough I can talk without effort.

I feel my heart, brain and every part of the body to have become very weak. I pray you to generously cure me and I will always and ever serve you for the time you are in India. Medicines only will not cure me and I believe I should be given nourishing food, such as milk, sago, oatmeal, etc., etc., and some butter. You have everything at your command and can do everything for me.

I was told by a doctor who passed from England that salt is injurious for me.

In the end I beg to state that whatever amount of money is spent on me I will repay the same by working when I am cured.

Praying for your long life and prosperity,
I beg to remain, Sir,
Your most obedient servant,
(Sgd.) CUJRAJ SINGH MALL.

Meerut.
—4—24.

The Rowing Cup Retained.

DEAR SIR,—Subsequent to the appearance of the notice of the Inter-Hospital Boat Race in the GAZETTE of May 10th, St. Bart.'s decided to scratch, despite our efforts to persuade or compel them to raise a boat. The Rowing Club thereupon endeavoured to inform its supporters by notice and otherwise of the cancellation of the race, but wish to apologise should any inconvenience have been caused to members of the Hospital who were unaware of the altered circumstances. In view of the fact that the Eight had been in training for some ten days

prior to the decision of Bart.'s, we have made a sporting entry for the London University Regatta of May 21st—a light boat event, for which a much longer period of training than we have at our disposal is really needed.

As far as the unfortunate lapse of the Inter-Hospital Race is concerned, the position is that we retain the Senior Cup, and also recover the Junior Cup, as for the latter we were able to put on a Four which rowed over the course. We have every hope that both races will be revived next year.—I am, yours faithfully,

K. S. KEELE.

Guy's Hospital,
S.E.1.
20th May, 1924.

Sport.

The Football Dinner.

Prologue.

FROM the South came a taxi bearing three men dressed in clothes suitable for the nights when men no longer eat in solitude, but foregather for high occasions. And as they sped along the Embankment, scattering those who dwell without the city walls to either side of the highway, they drew near to Waterloo Bridge. And they saw that even as they had heard tell, so was the bridge crumpled. And one of the three men said, "Let this bridge be unto us for a sign and a guarantee, that we may know with what uprightness and sobriety we shall hereafter return."

Preamble.

I have been thinking hard, very hard; for it has fallen to my lot to write of the Football Dinner and of the great deeds that were done that night, and of the great speeches that were made. Curious that of these great deeds and great speeches memory has treasured for me so little. Once I possessed a menu, whereon was scribbled copious notes—links that were to have compounded a chain of glorious narrative that would have made alive again the wit and wisdom, fire and rhetoric, charm and persuasion—magniloquence! of that evening. But the menu has gone—for ever, I fear—I know not how; mayhap trampled and besmirched in the turmoil of a Piccadilly Circus or a Leicester Square. And I am left frantic, destitute of the wherewithal to write.

Three times have I sat down to begin the wondrous epic of what befell that night. Three times have I risen, desperate to think that a blank, vacant and stupendous as the sky itself, remained still a blank. How to throw across it stars that would tell a well-ordered tale?

And then it seemed strange to me that a football club should require a ceremonial dinner at all. On what obscure page of history would I find the explanation of how sport and the ritualistic eating of food first became inseparable? It was thus, I imagined.

Anlaf, a Viking and President of the Deira Boar and Deer Chasing Club (cryptically represented on their blazers as D.B.D.C.C.) would call at the end of the season a general meeting of the D.B.D.C.C., and address the members something like this:—

"Brother Jarls, great honour have you done me in electing me as your president once again. We may say, and with justice, I think, that the past Season has been a successful one. Our fixture card for next year. . . ."

Hereabouts, brother Jarls begin to fidget; the speeches each year they find to vary seldom. The President, too, finding that he is not "getting it over" to his audience, calls for oxen and horns of wine. Whereupon all the Jarls, at last pricking up their ears, spring up and burst out into a thundering chorus of "for-or, he's a jollie goode fellowe, etc., etc." Nowadays, of course, no such obvious enticements are needed, and the custom survives merely for reasons of sentiment.

. . . Incredible! My menu has just been restored into my hands through the kindness of a friend. I apologise, dear readers (I wonder if you are still there?) for the tedious delay you have suffered. The menu is intact, but the notes, alas, are so completely effaced that they scarce help me. I must sketch it out as best I can.

The Dinner.

Dr. John Fawcett, in his presidential speech, told us of the anxiety with which the authorities of the Guy's Rugby Club waited at the Southampton Quays, watchful for any South African passenger who might possibly play rugger. He hoped, however, that the "Old Country" would continue yielding its annual quota to the team. In bidding farewell to Doherty as a player, Dr. Fawcett said that everyone looked forward to the time when there would be other little Dohertys playing just as hard and vociferous forward games as this great leader of the Guy's pack. Dr. Fawcett also congratulated the Soccer Club on winning the Inter-Hospital Cup, and on the general success of the Club during the year.

Replying to Dr. Fawcett's speech, Mr. J. G. Van Schalkwijk said that the Rugger Team had had a not altogether unsuccessful season since the numbers of wins and losses were about equal. Perhaps, he said, our having lost the Cup was a good thing in that it would stimulate us to greater efforts next year.

Mr. D. H. Couch thought that had not the Rugby Cup been lost, the Soccer Team could not have played with such inspiration as they did when they defeated Bart.'s.

Mr. W. D. Doherty deplored the poor attendance at the Dinner, for it reflected in some measure the lack of keenness responsible for a season which, despite what had already been stated, had not been successful.

Mr. King Rist assured us that he had carefully pointed out to a Bart.'s man that we had not lost the Cup, but only lent it. He also paid a tribute to the capital work done by Mr. H. K. Williams (*Hon. Sec.*).

Other speeches were made by Professor T. B. Johnston, Dr. J. J. Conybeare, Messrs. N. E. Kendall, F. Bekker, H. K. Williams, B. G. Scholefield, J. Simons, and "Uncle" Daneel.

Epilogue.

From the west came a taxi bearing three men. And wine had made glad their hearts. And one of the three men enquired of the driver saying, "What strange leviathan of stone is this, with legs massive as towers, which stumble not in the current of the river, whose eyes are blood-red, and whose belly is broken?" And the driver answered and said, "That, O my lord, is Waterloo Bridge."

Cricket.

The Fagge Firm v. "The Indefaggables."

MOST of the really important events of human activity are preceeded by some natural, but disturbing phenonemon more than usually remarkable, and it was a thunderstorm of the loudest type that heralded the 14th May and caused Mr. Fagge to lead out his "firm" to scout round a drying wicket. There is a lot to be said for the drying wicket. Batsmen, who succumb to the easiest of long-hops, are able to say, "how the balls shoot to-day, don't they?" and someone usually slips over so as not to be run out and gets his cricket flannels all dirty. One of the Indefaggables actually did this, and nobody quite knew whether what he said was for or against the drying wicket.

Close and Rowbotham opened the Indefaggable innings against the bowling of Medlock and Schofield. These bowlers were taken off after each had bowled two overs, so that they could conserve their energy in case they happened to be batsmen. The first ball of the match was bowled by Medlock, the actual ball used being now for sale in the Editorial Office. It was the prettiest ball of the match, round, red and free from mud and it took Rowbotham's middle stump just as freely. Thus expeditiously was the only grey trousered cricketer discharged, to give place to Marsh, who with Close ran the score up to twenty-eight before the second wicket fell. By this time the Fagge Firm had discovered two bowlers languishing in the long field, and, beckoning them in with the signs known to all cricketers, Mr. Fagge soon had them bowling out the rest of the side.

There were one or two regrettable incidents. Waterfield, having adjusted his eyeglass to a nicety and taken a very careful guard, was caught off his second ball and used a very hard word indeed. Borley, on the other hand, suffered Mr. Fagge to catch him out with a tact that should carry him far beyond his present position at the Hospital. Cricket fans should notice that during this innings there were no extras. This at first sight would point to the wicket-keeper as a master-man, but an enquiry into the matter showed that the scorer was a friend of the wicket-keeper and had put down all the byes as runs, on the principle of letting gone byes be by-gones.

Spence and Medlock opened the innings for the Fagge Firm, and it is pleasant to recall that Rowbotham in the most meritorious manner avenged himself on Medlock, though not before he had notched nine runs. Worked up into a fine frenzy by this success, he quickly bowled out Scholefield and it was not until Ensor and the Captain got together that runs began to come. Mr. Fagge was the only one to use two lines of the score-sheet, and even when he had lost Ensor, he still made a great stand with de Jager. Alas for the tail! No one could be found to stay with the Captain. Runs came more and more slowly and to his glory be it said, the H.S. with the greatest modesty placed himself at the bottom of the batting averages.

Several wides were bowled and one was actually signalled.

The Indefaggables.

S. C. Rowbotham, b Medlock	0
H. G. Close, b Ensor	22
A. R. Marsh, b Spence	28
W. D. Doherty, c Scholefield b Spence ...	4
L. W. Cann, b Ensor	2
H. Graham-Davies, b Ensor	6
H. M. H. Ashwin, l.b.w. b Ensor	0
R. B. Fawkes, b Ensor	8
R. L. Waterfield, c Spence b Ensor	1
R. P. Borley, c Fagge b Spence	0
G. G. Cameron, not out	5
Extras	0
Total	76

The Fagge Firm.

C. H. Medlock, b Rowbotham	9
P. D. B. Spence, c Fawkes b Graham-Davies	9
B. G. Scholefield, b Rowbotham	1
A. G. Ensor, b Rowbotham	27
C. H. Fagge, not out	23
W. A. Collington, c Borley b Close	2
J. A. de Jager, b Graham-Davies	7
J. N. Martin, b Doherty	5
L. G. Housden, c Graham-Davies b Doherty	0
J. Simons, b Close	7
S. V. Strong, c Borley b Doherty	1
Extras	5
Total	96

Guy's Hospital Golfing Society.

Staff v. Students.

THE Staff match was played on Sunday, May 18th at Broxbourne Golf Club; it is all over now, but we don't expect that we have heard the last of it.

The Staff started very early in the morning, almost at dawn, indeed it is said that an extern very nearly came to a bad end coming back from his usual Sunday morning B.B.A.—he was nearly run over by the Dean in Maze Pond.

We understand that the outstanding feature of the whole day was Dr. Scott's inability to miss his drives or, in fact, his mashie, or his irons or indeed his putts; we may see him even yet at Hoylake or the Cinque Ports;—he won a double victory. We are told that Dr. Stokes is like a good dog which either fought or did not fight other dogs, we have forgotten which, also, we have forgotten the moral of the story, but we are sure it was a good dog; anyway the Professor won his golf; we understand that the oldest member mistook the Professor for just-an-American-over-for-Wembley, we would liked to have seen that triumphal return.

Mr. Bromley played immaculate golf and won his single, five up and four to play; Mr. Chapple was rather unfortunate, he lost both his single and his foursome.

Dr. Marshall, we are told, plays golf in even a still different pair of spectacles, and it is said that Dr. Ryffel played with a clenched jaw—this is indeed

odd and we almost wondered if someone had not been mistaken about it.

The Dean has not yet cured his slice and alas, his suit has faded, it is now almost the same colour as his car; his opponent apparently had great trouble with a bumble bee, this undoubtedly had mistaken the Dean for a huge hollyhock, eventually the poor thing was so overcome with remorse at its mistake that it rolled over and died.

Mr. Mollison was not satisfied with one opponent so the Secretary kindly allowed him to have two; we understand that he had a good day's golf.

Mr. Doherty had a struggle not to be defeated at the tenth hole, or so the report goes, we of course do not believe it.

The Staff won the match by seven matches to six—it is whispered in unofficial circles that the betting before the match was 6 to 1 against the Staff—we wonder!

The actual results were:—

Singles.

Mr. Bromley	1	L. W. Cann	0
Mr. Mollison	0	E. J. Pye-Smith ...	1
Mr. Mollison	1	F. W. Schofield ...	0
Prof. Johnston ...	0	J. L. Glover	1
Dr. Scott	1	J. A. Vernon	0
Mr. Chapple	0	J. P. Evans	1
Prof. Stokes	1	W. G. Porter	0
Dr. Ryffel	1	H. D. Kendrick ...	0
Dr. Marshall	0	I. P. Anderson ...	1
Mr. Doherty	0	D. G. Bown	1
	5		5

Foursomes.

Mr. Bromley and Prof. Johnston	1	Cann and Glover ...	0
Dr. Scott and Mr. Mollison	1	Pye-Smith and Schofield ...	0
Prof. Stokes and Dr. Ryffel	0	Porter and Kendrick	1
G. W. Gathergood and Mr. Chapple	0	Bown and Evans ...	1
Mr. Doherty and Dr. Marshall	1	Anderson and Vernon	0
	3		2

The final result being a win for the Staff by 8 matches to 7.

United Hospitals Sailing Club.

ON the evening of the 9th April a meeting of the Club took place in the house of the Commodore. Mr. Thrower first gave a very enlightening discourse upon the various merits and de-merits of the dinghy, the half-decker, and the cabin-boat, when viewed from the stand-point of the "week-end boat"; and rounded off his remarks by advocating coal fires, should the cabin-boat be chosen. There followed a brisk discussion in which the half-decker fell into general disfavour as being hard to manage in moderately heavy weather, and easily sunk when heavy seas were running.

Mr. Chambler then drew our attention to the subject of lee-boards. He traced their origin to China, stated they were in use in Holland as early as the Fifteenth century, and recalled their familiar appearance upon some of the Thames barges of to-day. From here, it was an easy step to the question of lee-board *versus* centre-board, and many were the ingenious suggestions of escaping the inconvenience of the centre-board case,—the best perhaps being that of a centre-board which was hinged upon the keel, and held in position by two wire stays. By loosening one, the centre-board could be folded up under the boat!

Charts were then handed round and Mr. Lister put the following problem forward:—A five-ton yacht in the Wallet Channel between Walton and Clacton at 6.15 p.m. making for the Crouch; the tide flooding; the wind S.E. It starts to freshen and the weather comes up thick. What is best to be done? Here, the absence of charts renders a detailed account of the subsequent discussion futile; sufficient be it, that the alternatives of running through the Spitway into the Crouch or making for the Blackwater, were thoroughly gone into, and it was decided that the Blackwater was the safer haven.

The new proposal to run a small number of sailing dinghys on the East Coast was discussed with much zest and it was realised that the only real difficulty was the financial one. This difficulty, however, has already been largely overcome through the generosity of the Commodore, Mr. Claude Worth, who has very kindly presented the Club with its first dinghy.

Reviews.

Lectures on Gonorrhœa in Women and Children. By J. JOHNSTON ABRAHAM, C.B.E., D.S.O., M.A., M.D.(Dub.), F.R.C.S. Published by William Heinemann (Medical Books), Ltd. *Price 7s. 6d.*

THESE lectures delivered by Dr. Abraham embrace more or less the whole of the subject of Gonorrhœa in women and children; the difficulties so often present in investigating this somewhat secretive disease seem to have been overcome by this author, and he has given us in book form the results of his own observations and research.

The book as a whole is complete, and each lecture in itself is complete, but what makes the book most acceptable is that the author has spent most of the time in considering treatment, this has been admirably done and it would be difficult to find a gonorrhœal condition, either acute, chronic, or metastatic, the treatment for which is not described somewhere in this book.

A large amount of the treatment recommended is new, especially that for the chronic and metastatic types of the disease; of these perhaps the most interesting is the treatment of chronic gonococcal pyelitis by irrigating the pelvis of the kidney with

silver salts, this is made possible by using ureteric catheters and a cysto-urethroscope designed by the author, the operation can be performed without an anæsthetic and without causing the patient any material discomfort.

The first lecture of all deals with methods of examination, both clinical and bacteriological, and the last with "*the adequate standard of cure*," for which a number of tests are given.

Although the treatment of certain conditions could only be carried out by an expert, a large amount of it could be done by the general practitioner and this book should prove a boon to those interested in this troublesome disease.

Hospital Information, etc.

Guy's Hospital Chapel.

THE Annual Meeting of the Congregation was held on May 9th, in the Governors' Committee Room, the Matron taking the Chair in the absence of the Superintendent. The Acting Chaplain read the Report of the Chapel from Easter, 1923, to Easter, 1924, of which the following are the features of more general interest.

The Hospital is greatly indebted to the Rev. S. Coleman, Rector of Aspley Guise, Beds., who has acted two days a week throughout the summer months as Honorary Assistant Chaplain. Special sermons have been preached during the year by the Bishop of Southwark, the Rev. F. A. Evelyn, who gave an account of his work among students who had suffered from Bolshevist tyranny in Russia, and the Rev. N. W. A. Edwards. The two latter are old Chaplains of Guy's. A remarkable sermon was preached at the Harvest Thanksgiving by the Rector of Rotherhithe (late Stephen 24), who described "Stephen Ward from a patient's point of view."

A large congregation assembled on Armistice Day after the ceremony at the Memorial Arch, when the Rev. D. F. Wilkinson, M.C., preached. Special preachers visited us as usual in Advent and Lent, including the Rev. G. A. Studdert Kennedy, M.C., and the Vicar of St. James, Enfield Highway, who kindly conducted the Three Hours' Service on Good Friday.

The Incorporated Association of Hospital Officers held their Annual Service in Guy's Chapel in June and listened to an address of much insight from the Master of the Temple, after being conducted round the Hospital by the Superintendent. A festival Service of the Missionary Society (which it is hoped to make an annual fixture) was held in July, and a survey of the present condition of Foreign Missions was given by the Secretary of S.P.G.

The Works Department continues to carry out various improvements in the Chapel, this year's work being mainly notable for new panelling work in the Vestibule, in keeping with which a carved oak board has been erected giving the names and dates of all the Hospital Chaplains from the foundation to the present time. It is a worthy specimen of the taste and skill of our own Works Department.

The thanks of the congregation are especially due to Sister *Lorna*, Sister *Dearmer*, Sister *Marler*, and the other Sisters and Members of the Nursing Staff who have given much time and trouble to the respective duties in Chapel for which they have kindly made themselves responsible.

There were five vacancies on the Chapel Committee and these were filled by the appointment of Sister Martha, Nurses L. Turner and Rambaut, and Messrs. Chitty and Fawkes.

Notices.

The following Prizes have been awarded:—

The Third Year's Prize in Dental Subjects, 1924—
Prize—Mr. R. V. Bradlaw.
Certificate—Mr. L. Barclay.

The Senior Prize in General Subjects, 1923—1924—
No award.

Student Demonstrators of Dental Histology, May—July, 1924.
S. A. McLaren. H. M. Pimm.

Specialities.

The "Gem" Turkish Bath Cabinet.

THE GEM SUPPLIES CO., LTD., 67, SOUTHWARK STREET, S.E. 1.

THE "Gem" Turkish Bath Cabinet supplies a long felt want, as it enables patients and others to have a course of these baths in their own homes at a very small cost.

Many unsolicited testimonials have been received as to their efficiency, by the manufacturers, who will be pleased to send full particulars to Medical Men on application to the above address.

"Artox" Bread.

APPLEYARDS, LIMITED, MILLERS, ROTHERHAM.

WE have pleasure in recommending "Artox" Bread. It is made of wholemeal flour, very finely ground in stone mills, and retains the nutrient qualities of the wheat berry, thus rendering it both wholesome and digestive.

"Artox" flour is sold in sealed bags of 3, 7, and 14 pounds. Both the bread and flour can be obtained from bakers and flour dealers, or the Manufacturers, as above, will be pleased to send sample and particulars to Medical Men on application.

Change of Address.

C. A. Wakeford, L.D.S., 164, London Road, Leicester.

A. B. Hudson, 208, Jones Buildings, Fort Street, Victoria, B.C.

A. Hammond-Smith, 62, Brook Street, W.1.

W. J. Lindsay, 79, Wimpole St., Cavendish Sq., W.1. 'Phone: Mayfair 4344.

Appointment.

W. J. Lindsay, Surgeon, with charge of Out-Patients, The Royal Eye Hospital, Southwark, S.E.

Birth.

LONG.—On May 8th, 1924, at "Dene End," Stormont Road, Highgate, N.6, to Violet (née Hook) the wife of Harold O. Long—a daughter.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *June 7th, 1924.* *Number 937*

PASSIM

IT is a very good thing to be in tune with one's surroundings; it is a very evil thing to be put out of harmony with them suddenly.

On the one seasonable afternoon of last week, we were sunning ourselves on the theatre balcony, lazily watching the antics of our favourite tortoise. The violent storm of the previous night had refreshed the Borough air and our mind was clear and receptive, ready for any fair thought that might come to it with the sunshine. And as we watched, it seemed to us that our tortoise had a message for us. We studied him attentively. For a while he would progress with the greatest gravity and circumspection, usually in the direction of some quiet retreat beneath one of the tubs of flowering plants, until, coming unawares on some strange object—a leaf, book or half-burnt match—he would withdraw head, legs and tail within his carapace and cover his face with his hands. Thinking on this behaviour, we had dreamily composed quite a reasonable essay on "Modesty or the virtue of retiring into one's shell," when the voice of a registrar recalled us to the present with the abrupt question, "Where do thunderbolts come from?" "Thunderbolts, by jove," we replied with no intention of speaking literally or giving support to any such pagan notion, but merely using a colloquialism, "Why, surely they come to us as visitors from another world, little scraps of Martian meteorites or stony messages from Venus?" This was said without conviction and it may have been the halting tones of our suggestion that prompted the scornful remark, "No, they come from the lightning of course,"—and, having thus interrupted our train of thought, he went back to his work.

Left again to ourselves, we looked down at our modest companion and tempted him with a piece of lettuce. "Where do thunderbolts come from, old chap?" we sighed, "and anyhow what is a thunderbolt?" For as we thought, it occurred to us that we had never encountered one. Most of our friends had seen them, some even asserted that they had pieces of them at home on the overmantel, and to them they had been very terrible and impressive; but we ourselves had had no opportunity of being struck by either them or their grandeur. The remark that they came from the lightning would not fit in with the pieces of metal on the mantelpieces, and the whole phenonemon seemed shrouded in mystery. We sank back on our cushions in a rapidly increasing sleepiness, and through our mind swam a succession of distantly connected thoughts. Thunderbolts, fire and brimstone, Sodom and Gomorrhah, Lot's wife, and so by increasingly big jumps to Peter's wife's mother, salt-petre, shot and shell and tortoise-shell,—when a deafening crash reverberated through the theatre passages and panes of glass could be heard jingling on the stones below. Wide awake in a moment—the result of long years of sudden awakenings by the College Porters—we hastened inside, and a white-lipped nurse answered our questioning look with the remark, "It's the pig; its burst."

It may be we were slow-witted, but coming so soon after the sudden catechism on thunderbolts, it seemed to us that we were not up to

the standard of modern hospital conversation. The pig had burst and the hospital still shook, yet no mere dietetic indiscretion could have produced so great an explosion. Perhaps at last we had found the answer. A gush of steam from the end of the corridor led us to the scene of the disaster to find, not blood and entrails, but packets of sponges and sterile towels. The "pig" was, in fact, the steriliser and the cause of death a few extra foot-pounds of steam pressure. The explosion had taken place in an empty room and there were no casualties, but we understand that a large proportion of the sterilising is now carried out by the hospital beetle-catcher, this being the close season for beetles.

WHATEVER it may be in meteorology—and we understand on the best of authority that there is no such thing—metaphorically a thunderbolt is a great shock, and as a thunderbolt to his many friends came the news of the final departure from Guy's of C. H. Medlock, F.R.C.S. Having for fourteen years remained loyal to Guy's, he has now been drawn away by the joint persuasions of Eros and Pluto, who between them are responsible for robbing the hospital of a popular man, a sound teacher and a good surgeon, and the Fagge "firm" of the leader of their "take-in" cat hunts. There is little doubt that he will succeed as well in his new work at Hertford as he has done here, and so fulfil the good wishes that he takes with him from all those who have known and worked with him at Guy's.

FROM the opening sentences of this "Passim" it should not be assumed that much of our time is spent, basking in the sun. This one isolated occasion was a direct result of Dr. Rollier's visit on May 22nd, when he lectured to a crowded theatre on "Heliotherapy." The first part of his lecture is reproduced in the present number. It is a verbatim report, and loses a certain amount of its original fascination by being unaccompanied with the many excellent illustrations that were seen on the screen. The list of slides have been included as they relate the variety of diseases, in which heliotherapy is efficacious. It was a great delight to listen to so eminent a Physician and we look forward to many more visits from both Dr. Rollier and other famous physicians and surgeons from abroad.

IT is with the greatest regret that we record the death of Victor Andreoletti on Sunday, May 25th, the day after a short appreciation of his work at Guy's had appeared in the GAZETTE. He worked for the Hospital, almost to the day of his death, for forty-seven years. The funeral took place at Highgate cemetery, representatives from the Hospital being present.

Obituary.

EDWARD TYSON KITCHEN entered Guy's in October, 1921, after having passed the Medical Preliminary, and Conjoint Examinations from St. Joseph's College, Norwood.

He passed the Second Conjoint Examination in March, 1922, and had completed the appointments of Surgical and Junior Medical Ward Clerk and Junior Dresser when he was admitted into Stephen suffering from influenza and myocarditis. He was sent home to rest after a month's stay in the ward and died suddenly on May 6th, 1924.

His death was a great shock to his father, Dr. H. Kitchen, of 82, Wickham Road, Brockley.

He was a keen student, and among his many friends at Guy's was counted one of the best.

Publications Received.

Isis, The Nursing Times, Bratislarské Lekárske Listy, The New Cambridge, Long Island Medical Journal, Guy's Hospital Reports, The Middlesex Hospital Journal, The Charing Cross Hospital Gazette, The Cambridge Gownsman, University of Durham College of Medicine Gazette, British Medical Journal, The Hospital Gazette, The Northerner, The Queen's Medical Journal, The Organotherapeutic Gazette, The King's College Hospital Gazette, The Medical Journal of South Africa.

Department for Venereal Diseases.

Applications are invited for the post of Director of the Department for Venereal Diseases. Part Time. Honorarium £500 per annum. Duties to commence on or about July 1st.

Further particulars may be obtained from the Superintendent. Candidates should send their applications, together with copies of not more than four recent testimonials, to the Treasurer, Guy's Hospital, on or before Saturday, June 14th.

Heliotherapy.

A Lecture delivered at Guy's Hospital on May 22nd, 1924, by Dr. A. ROLLIER, of Leysin.

IN the first place, I wish to express my thanks to Sir Alfred Fripp for the honour and the pleasure he has done me in asking me to come to your well-known Hospital and to speak to you on the subject of Surgical Heliotherapy. It is always a particular pleasure for me when I happen to speak to students, for, being students, you are the representatives of the future and heliotherapy also appears to me as the treatment of the future. Scepticism and routine have not yet had time to influence your intelligence, which luckily remains open to progress and thus your minds will be particularly accessible I feel certain, to the few new ideas of which I wish to give you to-day a brief summary. Unfortunately, time does not permit to give a complete account of so vast a question and to go into details of the different chapters of heliotherapy. I shall only touch upon the captivating point of the physical basis of heliotherapy and the important question of posology, and will give you a more detailed account of the clinic and the practice of the sun-bath, and of the predominant rôle heliotherapy plays in the prevention of tuberculosis.

It is generally admitted to-day, that of all infectious diseases, tuberculosis is the one in which the constitutional factor plays the most important rôle. This is as true for cases of so-called surgical tuberculosis as in those with pulmonary involvement.

For too long we believed that the lesions engendered by Koch's bacillus in this or that part of the human body constituted a purely local invasion, to be overcome by the use of antiseptics, or dealt with by a stroke of the knife, as one might operate on a tumour. This was a fundamental error. The manifestations of external tuberculosis, no matter where they be located, are no more than local symptoms of a general infection. Their mode of evolution depends much less on the virulence of the infecting organism, or on the number of foci, than on the general and local defences of the body.

In the rational treatment of surgical tuberculosis direct operative interference should be abandoned, seeing that it is often of doubtful value, and is in any case directed against the infected parts. Treatment should be carried out with the active and passive co-operation of the patient, and reliance should be placed chiefly upon the inexhaustible therapeutic resources of Nature. Neither general nor local treatment can be expected to prove efficacious, if in any way they hinder this indispensable building up of the general resistance to infection.

Heliotherapy constitutes the ideal method whereby this end may be obtained. It may be practised wherever the sun shines: in the plains, by the sea, in the mountains, and the most favourable conditions are, of course, wherever the sunbath can be practised throughout the year, in combination with the air-cure.

The sun-bath consists of exposing methodically the whole surface of the body to the sun. The skin is toned up and becomes pigmented when it is placed in direct contact with air and sun, for these are its natural media. It then recovers its multiple and indispensable physiological functions. Thus it plays once more its distinctive rôle in the organism, and becomes the clothing for the body that Nature meant it to be. Pigmentation confers on the individual an increasing resistance to heat and cold. It fights the entry of harmful germs, and the infection of traumatic lesions, and it aids cicatrisation. The pigmented skin is protected against cutaneous affections, such as furuncles and acne, which are only too frequently the portals of entry of worse diseases. Moreover, the pigment seems to have a faculty of accumulating dynamic force. Experience daily confirms our opinion that the resistance of an invalid is proportional to the degree of his pigmentation, for this serves not only to protect the skin against too great irritation by the ultra-violet rays, but also to regulate the heating effect of the sun.

The biological value of pigmentation is asserting itself more and more, and with Dr. Rosselet we attribute to it a transforming function analogous to that which Dreyer attributed to certain fluorescent substances, such

as eosine and erythrosyne which can transform short into long wave-lengths. It is the long wave-lengths which are the more penetrating. Moreover it seems highly probable that the pigment furnishes and renders active some elements which are essential to the metabolism of the hormones.

The sun-bath by dilating the capillaries, brings about an increased flow of blood through the muscular layers towards the skin. By this means the tone of the muscles is greatly improved, and perfection of bodily improvement is achieved. This rebuilding of the muscles seems also to be due to the stimulus given to the muscle-fibres by the vibrations of the solar radiations, acting on the net-work of sensory nerve endings, which covers the whole surface of the body. The muscles being restored, recover their power of leverage, and thus contribute to the return of articular function. We shall now illustrate this statement on the restoration of the muscles by showing a few lantern slides:

1. Tuberculosis of the sternum and of the two mastoid apophysis, double trepanation. The same boy after 8 months.

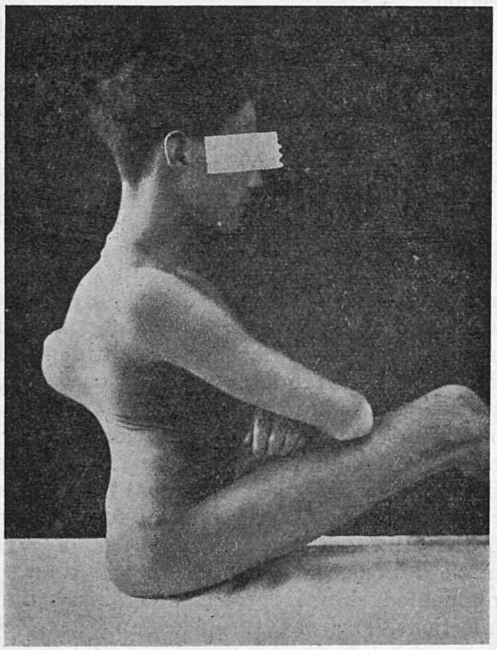
2. A case of dorsal inferior Pott's disease. The same boy after 18 months.

3/4. A boy suffering from multiple tuberculosis. Six months later.

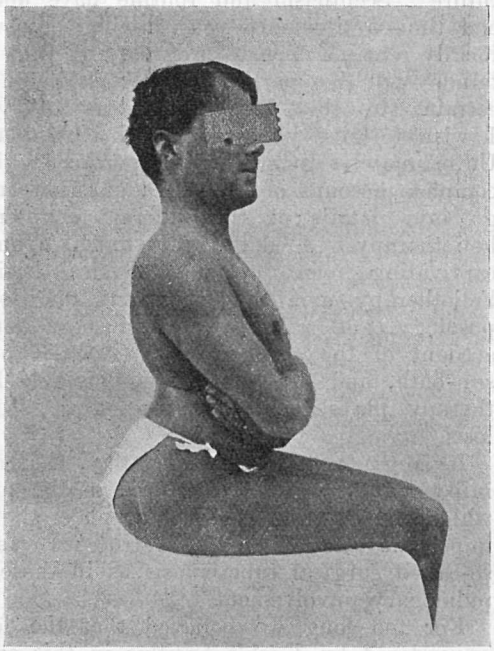
5. A very bad case of tuberculosis of the knee. The same patient completely transformed.

This action of the sun extends also to the ligaments and to the whole skeleton, and favours recalcification. We shall show X-ray photographs which will prove this beyond question.

This property of the sun's rays, which we have noticed since the beginning of our work at Leysin in 1903, has had much light thrown on it in recent years by researches on the etiology and treatment of rickets, especially those of Hess and his colleagues.



A case of Pott's Disease with Kyphosis.



The same case after 23 months.

The tonic power of the sun shows itself also in its effects on the thoracic and abdominal organs. The air and sun-bath, quicken the appetite, stimulate the digestive organs and bring new strength. Under their influence the number of blood corpuscles increases, as also the content of hæmoglobin. The blood formula improves, nutrition and tissue exchange become more active. Let us note finally the favourable action of heliotherapy on internal secretions, and recall that before ever we started work at Leysin, an old doctor of the Rhone valley used to send up there, with

successful result, patients suffering from thyroid deficiencies.

In what manner does the sun exercise its action on the human body? This is a complex question which time does not permit to examine here in its details. I should advise those who wish ample information on this side of the question to refer to the most excellent work just given out by Professor Leonard Hill on "Sunshine and open air. Their influence on Health, with special reference to Alpine climate." (Reviewed in this number.—Ed.)

It is certain that the sun acts through the whole spectrum and not by virtue of this or that radiation, either ultra-violet or infra-red. If we allow that the violet and the ultra-violet rays exercise a bactericidal action only at the surface of the skin, we can understand why there was a doubt about their value in the cure of surgical tuberculosis. The experiments of Weisner had proved that the infra-red rays, particularly those situated close to the red, have also bactericidal power and can exercise a direct influence on deep seated foci. Professor Leonard Hill who, with the aid of Dr. Eidinow, has undertaken recently the same experiments however comes to the following conclusion: "the infra-red rays, apart from overheating, have no lethal effect." Besides this, Bloch tells us that the rays at the red end of the spectrum exercise a vaso-dilator action, which favours the influx of phagocytes and brings about the appearance of the oxidising and pigmenting ferments of the epidermis.

A great number of recent experiments made by Bloch, Nägeli, Behring, Rothmann and Pinkussen show that light has also a valuable indirect action. Though we cannot go deeply into their conclusions, these do in part explain the modifications which follow on heliotherapic treatment. From them we can at least draw the conclusion that blood on which sunlight plays becomes a receptacle of radiant energy. This energy is transported to all parts of the organism, hastening the intercellular processes of oxidation and reduction, and thus modifying the whole metabolism. Indeed Schläpfer has given proof, by means of photographic plates, of the photo-activity of insolated blood. In fact, as Dr. Rosslet has said, insolation builds up the defences of the body, and makes it fitter to battle against infection, to diminish it, and to extinguish it.

The sun's rays, as we have said, exercise not only a general effect, but also a local effect through their analgesic, germicidal, sclerogenous and reductive properties. Thus associated with immobilisation and extension, heliotherapy rapidly diminishes and finally abolishes the pain associated with tubercular osteo-arthritis. The same is true of peritonitis and cystitis, where the dosage of light is strictly regulated. Heliotherapy also constitutes the ideal treatment for torpid rebellious sores, destroying infective germs better than the best antiseptic, and favouring cellular defence and healing. Osteitis and arthritis at all stages of their evolution respond to heliotherapy.

Our work has all along been checked by X-ray photographs taken at various stages. Thus we have over fifteen thousand records, and these show that there is no bony centre, however deep, which cannot be reached by heliotherapic treatment.

We have pictures taken in series, showing all forms of Pott's disease, and from these we may observe a progressive sclerosis of extensive vertebral lesions, and with it the disappearance of cold abscesses, or the calcification of their residue. Solid blocks are constructed, which aid consolidation better than the most perfect bone-grafts.

6, 6a. Dorsal Pott's disease, with abscess formation.

7, 7a. The same, after one year, cured, with formation of block, and resorption of the abscess.

8. A case of dorsal inferior Pott's disease in activity, with formation of abscess.

9. The same case, 8 months later, cured with resorption.

In cases of coxalgia, both in adults and in children, even when the acetabulum, the head of the femur, and often the neck as well, show all the signs of advanced destruction (represented on the plate by a dull blurring of all the edges of the joint) we yet see appearing little by little out of this chaos a new acetabulum and a new head, whose contours, at first confused, grow gradually more regular and precise. The zone of demarcation becomes clearer and clearer, and parts which have been affected by atrophy become the seat of intense calcification. In other cases, where the head of the femur has been displaced across the caseous base of the joint, the X-ray photograph shows the stages of progressive reconstruction,—the reappearance of a strong wall

formed by a new trabecular structure, the creation of a new articular cavity, the tissues of which become sclerosed, the resulting articulation being so good that it permits the new head of the femur to function in a manner that would formerly have been thought impossible.

10. Hip disease with mixed infection and sinus formation, absolute decalcification.

11. Cured with trabecular structure and good outlines after one year and a half.

12. Severe hip diseases with perforation of acetabulum, active stage.

13. Cured with formation of solid osseous bridge towards the small pelvis, 20 months later.

14. Active hip disease, extended destruction of stalk of femur, with cavity and sequestrum. Acetabulum destroyed.

15. The same cured, after elimination of sequestrum. Sharp structure and outlines, 8 months later.

16. Left-sided hip disease, migration of Cotyla. Insufficient delimitation of head and acetabulum, exaggerated atrophy.

17. Return of trabecular structure with loose net, complete limits of head, absolute cure after one year and a half. We can show by radiograms analogous and equally unhoped for transformation in cases of osteo-arthritis of the knee, the shoulder, the elbow, and the wrist.

18. Active tuberculosis of head of shoulder, with foci in epiphysis.

19. The same, after eighteen months, cured, good structure and contours.

20. Oleinitis tuberculosa, active process, decalcification.

21. Cured with sharp structure after fifteen months.

22. Active tuberculous inflammation of the elbow.

23. Cured with strong articulation in beak, after sixteen months.

24. Active arthritis of the talo-crural joint, the articulation in destruction.

25. Cured with return of articular space, after one year and three quarters.

26. Osteitis of the calcaneum, active process.

27. Cured with clean cicatrised focus, after 18 months.

In cases of the knee, for example, even when destruction of the cartilages and of the articular surfaces has taken place, reconstruction is frequent, and we have seen it go as far as reconstruction "ad integrum."

28. Gonitis fungosa, atrophy, opaque articular space.

29. Cured with trabecular structure after one year and a quarter.

30. Gonitis dextra. Formation of focus in lateral epicondyle of femur.

31. Cured with returned structure after 12 months.

32. Gonitis with formation of focus in the lateral epicondyle of femur.

33. Cured with trabecular structure after twenty months.

34. Osteo arthritis of the knee, focus in epicondyle of femur, external side, with sequestrum.

35. Cure of arthritis,— re-organisation of sequestrum.

In ordinary cases of spinæ ventosæ, we sometimes see phalanges which have been entirely destroyed show at length under X-ray examination so dense a structure and so clear a contour, that they can hardly be distinguished from the unaffected phalanges.

36—37. Spina ventosa of the little finger.

37—38. Inguerison. Cured after one year with restitution of the articulation.

40. Multiple spinæ ventosæ.

41. Cured with sharp ossification, after 10 months.

42. Osteitis of metacarpus, active, with periostitis.

43. Cured with neo-formation of bone after one year and a quarter.

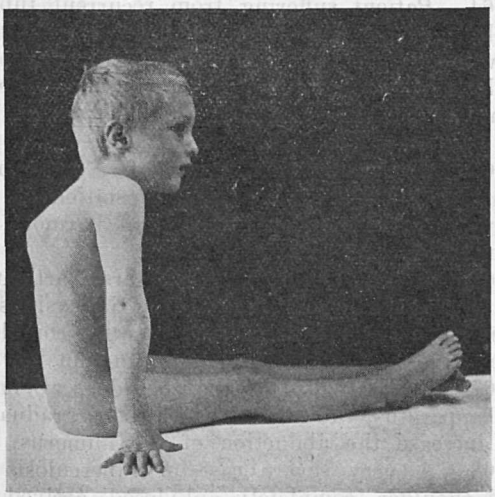
Sometimes we can ascertain successive phases of spontaneous elimination of deep-seated sequestræ, and at the same time we see how a line is drawn between the healthy portion which it is in the interest of the organism to preserve, and the unhealthy portions which it must expel.

But although treatment by heliotherapy can so favourably influence tuberculous articulations, it cannot be claimed that it will of itself correct vicious attitudes. To the sun and air must be joined rational orthopedic measures. The practice of sun-therapy has caused us to break with the usual methods and to adopt one of which the principles, namely reduction and extension, are of extreme simplicity. They allow the sun's access to the diseased regions,

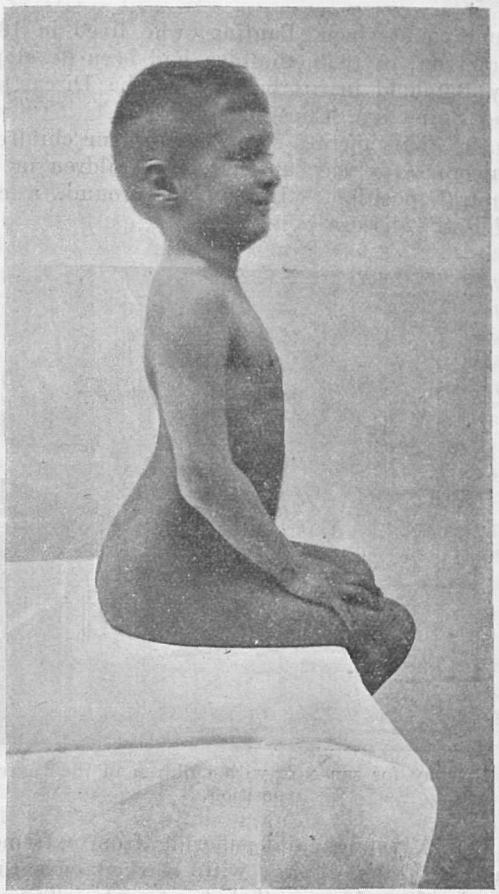
and never interfere with the local circulation or the indispensable restoration of the muscle-tone. We have therefore been led in cases of Pott's disease and tuberculous joints to the use of plaster jackets. These deprive of contact with air and sun the very parts which have most need of them; they suppress the cutaneous functions; they tend to injure the skin and cause the muscles, and even the skeleton itself, to atrophy.

45. For Pott's disease, as for arthritis of the lower limbs, it is always indispensable to associate heliotherapy with immobilisation in a horizontal position. This picture shows the bed and appliances we use for cases of Pott's disease. The body is fixed firmly by a sort of cloth corset, which has only to be opened to permit insolation of the whole of the anterior surface. Where Pott's disease is associated with kyphosis, we seek to reduce this by bringing to bear upon it, by easy stages, the steady pressure of the body itself. To this end we use cushions of millet or of sand, the compactness and thickness of which we steadily increase, and which, in the end, we replace by a wooden block.

46. Here is the patient whom we have seen just now in the dorsal position. This boy came with Pott's disease, complicated with mixed infection, with a sinus in the region of upper third of thigh. He had prominent curvature. The patient's muscles had been atrophied by wearing plaster apparatus for many years. He was cured and partially straightened after two years sun treatment.



A case of Pott's Disease with Kyphosis.



The same case after 18 months. Correction of the Kyphosis.

47. As soon as the calcification of the vertebral blocks permits it, the patient is placed in the ventral position. (This picture shows the same patient again). A sick person has a tendency to raise the head to look around, and by this action, he accentuates the physiological lordosis. The ventral position of itself constitutes a rational method of correcting kyphosis, and favours the development of the muscles of the scapulo-humeral and dorsal regions. Thus the patient finally finds himself equipped with a natural corset of muscles, which is the ideal support for the vertebral column. The ventral position is also the ideal physiological position. By the pressure exerted on the abdomen it contributes to the regulation of the intestinal functions, and it is the position usually preferred by the invalids. It is interesting to remember that the first doctor who ever recommended the ventral position was one of

your countrymen, Banting, who lived in 1824. Later on, in 1828, the idea had been developed by Bamfield in his book, "On the Diseases of the Spine and Chest."

48. This picture shows one of our children's balconies for the sun-cure, the children in the ventral position. In the foreground, a case of Pott's disease.

Balcony for sun-cure with children in the ventral position.

50. A young child suffering from extremely painful Pott's disease with marked curvature, cured after 18 months' treatment. The remarkable carriage of the child, his developed muscles, and the change in the expression of his face are evident.

51. A case of dorsal superior Pott's disease. Very bad general health.

52. The same child, cured, after 20 months.

53. Apparatus for the treatment of cervical caries by immobilisation and extension, leaving free the region of the chin.

54. For coxalgia, the immobilisation of the pelvis, raised by a pad, is associated with continuous extension of the leg by the aid of a contrivance which leaves the whole of the coxo-femoral area open to the sun. Thus we avoid the harmful bent position of the leg, and, at the same time, strengthen the muscular system. For hip joint, extension is applied by means of a double bracelet with the addition of a sandal for the correction of equinism.

55. Very advanced hip disease of old standing, with bad position, lordosis, marked shortening, mixed infection. The same case to show our extension by means of wheels placed on a little cart.

56. A girl of six. Very advanced hip disease. Destruction of head of femur. Shortening and bad position; general atrophy of muscles; the same patient after one year and a half. The position has been corrected, the muscles strengthened, general condition improved. The same patient showing spontaneous partial return of articular function.

57. Hip disease with ankylosis.

58. Complete cure after 16 months sun treatment.

59. The same patient, to show the return of articular function.

In arthritis of the knee or foot, we join to heliotherapy the immobilisation of the leg on an inclined plane. This aids the returning circulation and so brings about a reduction of the capsular swelling and of peri-articular infiltration.

60. Apparatus for extension in cases of tuberculosis of the knee.

61. Arthritis of the knee, with abscess formation. The same patient, cured, after 15 months. The same patient, to show the partial return of articular function.

62. A girl of eight. Tuberculosis of the left knee. Atrophy of muscles and bad general health. The knee is cured after one year, showing normal contours and restoration of the muscles. Complete return of articular function.

63. Jointed celluloid apparatus used in the treatment of tuberculosis of the ankle joint. Especially useful for the correction of pes equinus.

64. Patient suffering from recurrent tuberculosis of the feet who had been operated on several times. She also suffered from tuberculosis of both elbows with a miserable general state of health. Her face wears an expression of pain.

65. The same patient again after two years, absolutely cured of every manifestation of tuberculosis. Note the beauty and harmony of her body.

66. Patient aged 20. Tibio-tarsal arthritis, with marked swelling and multiple sinuses. The same patient after seven months, complete cure and return of articular function.

67. For arthritis of the shoulder, we have an apparatus, the object of which is gradually to increase the abduction of the humerus.

68. A very severe case of tuberculosis of the shoulder, completely ankylosed, arrived in

Leysin after resection, with numerous wounds consecutive to mixed infection. The same patient after one year.

69. The same, to show the return of articular function.

70. Tuberculosis of the shoulder, with mixed infection. Cachexia. Severe pulmonary tuberculosis. The same patient, cured after one year.

71. Spinæ ventosæ, tuberculosis of carpus, with voluminous fungus. Cured after seven months.

71a. Advanced tuberculosis of the little finger (seen already as a skiagram). Complete cure after one year, return of articular function.

Heliotherapy is equally effective in other localisations of surgical tuberculosis. For peritonitis, adenitis, and cutaneous tuberculosis it seems to be the ideal treatment.

72. A case of tuberculous peritonitis with effusion; also pulmonary tuberculosis and pleural effusion. The same, one year later.

73. Peritonitis asciti, complicated with left-sided pleurisy. Very abundant pleural and peritoneal effusion. Resorption of the effusion, without puncture, after six months of solar cure. Remarkable restoration of muscles and development of thorax.

74. Adenitis submaxilaris. Cured after six months.

75. Tuberculosis of glands, with ulcerations and secretion. Cured after five months.

76. Tubercular adenitis. Cured after five months of sun-cure.

77. Voluminous cervical glands. Cured after four months.

78. Young man, aged 22. Primary tuberculosis of conjunctiva with secondary adenitis. The same patient cured after seven months.

79. Extended lupus of the face. Cured after one year.

80—81. The same case.

82. Another case of extended lupus of the face. Cured after one year.

Another essential point gained by this treatment is that it wards off the dangerous complications which mixed infections bring. The is due to the increased resistance of the skin and to the intensification of local and general resistance. In proportion as the prognosis of surgical tuberculosis is favourable when it is closed, so is it unfavourable when it is complicated by the association of other micro-organisms. We are almost prepared to affirm that our cases of surgical tuberculosis never die of tuberculosis on the mountain side, but only of cardiac weakness or of amyloid degeneration following on the secondary infection which patients too often show on arrival. Tuberculosis of the pelvis, and of the sacro-iliac joint among others, is invariably curable by heliotherapy treatment when closed, even when it is accompanied by very large cold abscesses; but it becomes one of the most troublesome localisations of the disease when spontaneous opening has occurred, or when after being needlessly opened it has become infected by other germs. A harmless cold abscess thus becomes highly toxic, and effective drainage is almost impossible.

In spite of this, even such cases as open tuberculosis seem to respond better to heliotherapy than to other methods of treatment. When scrapings and injections of antiseptics have remained ineffective against interminable suppuration, and additional infection, the sun-cure, aided by rational drainage is the "refugium ultimum." Then, permanent sores take on a healthy appearance, fistulæ become clean, articulations which had become veritable sponges full of pus, become the scene of vigorous repair, and dead tissue and sequestræ eliminate themselves without intervention. The few following slides will illustrate this:—

83. Tuberculosis of the knee, arrrived in Leysin after resection, in a desperate condition. He had numerous wounds, not only in the region of the knee, but on the whole thigh. These wounds were consecutive to abscesses which had been incised and infected. There was bad position of the leg, ankylosed in internal rotation, very bad general health. The patient was feverish, cachectic, and suffered acute pain. The same patient, after two years. The knee was cured, in ankylosis, of course, owing to the resection. Cicatrisation of all the wounds and general health excellent. The young man has now been, for over 14 years, at the head of a rural settlement, and always in good health.

84. A very severe case of hip-disease who arrived in a miserable condition, complicated with numerous sinuses of mixed infection.

85. The same patient after two years, cured, with all the sinuses dried, and restoration of the whole general health.

86. The same patient showing partial return of function.

87. A case of old-standing hip-disease, with sinus formation consecutive to operation (six sinuses).

88. The same case after 10 months. Complete cure of hip-disease and cicatrisation of all the sinuses.

89. Severe arthritis of the knee with mixed infection. Cured after one year and a half.

90. The same case, to show return of function.

With all this it must not be forgotten that heliotherapy is only really efficacious when it is applied according to certain rules of posology, and with rigid exactness. To break those rules is to court delays, and these only tend to cast discredit on the method. First and foremost a strict study of case individually is necessary. Before exposing a patient to the sun, a general examination of all his organs is made. The state of heart and lungs is minutely examined; temperature, breathing, pulse and arterial pressure are specially studied. Patients who are being submitted to alpine climate for the first time must first become accustomed to the altitude. With whatever lesion they may be affected, they are kept for several days in their rooms, and careful watch is kept on the temperature and on the nervous reaction of the viscera and of the local lesion. It is only later that the patient is allowed out on the sun balcony, and he is then exposed to the sun by slow stages, having regard to the fact that a too rapid reaction at first points to slow adaptation to heliotherapy.

Since the first thing is to ascertain the patient's degree of tolerance, and the rate to which the cure will have to be regulated, the rational procedure is to start in all cases with the insolation of the lower limbs.

In thus exposing the feet and legs, which are to some extent a neutral region, capable of insolation without risk, we obtain, from the beginning, valuable indications as to how the cure will proceed.

This method of carrying out heliotherapy, which we have named "derivative," has been arrived at by experiments. The blood is made to flow to the lower extremities and soon provokes a movement calculated to relieve abdominal and thoracic congestion. It prevents any possibility of accidents, and is applicable to the most diverse cases.

We proceed by short periods of a few minutes each, separated by intervals of repose in the shade. As the trunk is approached, we proceed with even more circumspection, especially if the case is complicated by pulmonary tuberculosis. The head is covered with a white linen hat and the eyes are protected by smoked glasses. In cases of exceptionally sensitive patients, with organic or functional cardiac disorders, it is wise to place a white cloth over the region of the heart.

(To be continued.)

The Light Side of a M.O.'s Life in the Army.

BY FRANCIS HEATHERLEY, F.R.C.S.

(*Continued*).

Before I entered the service I was rather proud of the assertion that our men are to be distinguished from the soldiers of other nationalities by their superior powers of initiative. German soldiers when they lose their officers are said to become as helpless as a flock of sheep. Ours when they lose their officers mainly err by going too far. Private Todger Jones, V.C., with his hundred prisoners is essentially a British product.

This wonderful power of initiative is all right when acting on the enemy, but it is not quite as welcome when played off on yourself. Of course, one form it takes in the army is malingering. I will touch on that in a future letter, here I deal with schemes for getting out of trouble or for getting even with some one.

I was finishing a lot of inoculations in a mounted unit one afternoon when the C.O. came into my tent in a towering rage and wanted to know what the devil I meant by inoculating his prisoners. I pleaded ignorance and then he explained that in walking round the camp he had visited the far field where the horses with mange and ringworm were isolated and had found the sergeant absent and the men playing cards instead of attending to their duties. He had halted them near my tent with the intention of sending some one to take them to the guard-room. Finding an important wire awaiting him at

the orderly room he forgot them. They, seeing their chance, filed in and, joining my victims, got themselves inoculated and so put themselves beyond his reach for forty-eight hours, by which time they shrewdly guessed that he would have cooled down.

On another occasion one of our men strained his back badly in helping to win an inter-regimental tug-of-war. This win, by the way, led to a good deal of bad blood as our opponents considered that they had been jockeyed, whereas it was due to our adjutant being very scientific. He had trained our team very carefully and his pet dodge was that at a critical stage of the struggle they should all suddenly change and pull overhand, the signal being a blast on his whistle.

It answered only too well, for when he suddenly blew his whistle the majority of our opponents gave up pulling thinking it was the umpire and that they were over the line. As this coincided with redoubled efforts on our part it ended in their sudden collapse, and for ever after there was ill-feeling.

But this man of ours had a private grudge against the quartermaster, who was a grumpy old warrant officer, and used me as his unconscious tool. Late that night I was sent for because his back was giving him great pain. His tent mates could not sleep because of his groans and strangely enough they were very sympathetic. What he complained of and what they agreed was not right was that he should have to lie on the bare ground. Couldn't he have a bed? He ought to have a bed. I didn't see how he could have a bed, and innocently jumped at the idea when someone suggested a stretcher. So I said that of course he could have the battery stretcher.

A stretcher had been issued to each battery during the previous week, so I was very annoyed when my messenger returned from the quartermaster to say that no stretcher was available. I sent him back with the order that it must be found and when it finally arrived everybody seemed pleased and grateful.

But next morning I found that I had helped to wipe off an old score by pulling it from under the quartermaster, as he was sleeping on it!

On another occasion a sentry on guard in an outlying part of the camp which had to be watched to prevent men trespassing in search of game was arrested for being absent from his post. He was arrested two fields away where he was busy setting snares. The strange thing about the case was, that he had no explanation to give, as he was usually a man of ready wit and fluent tongue, but reserved his defence until brought before the Colonel.

Then he found his tongue: what he had done had been done simply and solely in the interests of and for the moral welfare of the men. Asked to explain what he meant by this, he entirely upset the Colonel's gravity by explaining that he had noticed repeatedly a doe rabbit apparently actuated by the frenzy of love trying to break into our lines. In trying to compass the death of this wanton he honestly believed that he was safeguarding the morals of our men from a thoroughly bad influence, and he never moved a muscle of his face. He was let off with a warning, and next time by a bit of initiative which he modestly affirmed to be not a patch on the doe rabbit, he won a very coveted medal.

Never despair of a bad lot. Many a hard case who has been kicked out of Sunday School turns out trumps in the end. Lots of them are useful companions when you are in a tight corner.

On another occasion, in compiling the statistics of our inoculations, I accidentally found the case of a man who had been inoculated four times instead of twice. The fact of the matter was that so little did inoculation upset them that certain bright spirits thought that after a prudent interval it would pay to volunteer afresh and so become entitled to two lots of freedom from all duty for forty-eight hours. When the first adventurer found that the second lots were quite free from after effects the practice spread. That night my corporal and I sat up late checking names, and found that over a dozen had played the game on us. Consultation with the C.O. resulted in a warning of pains and penalties in Battalion Orders. It was an eye opener for me; I was prepared for schemes for escaping inoculation, but never dreamt of the opposite having to be guarded against.

Of course, this would not have been possible had I adopted the method of keeping records which I evolved later on and which I commend to your notice.

I got each company to provide me with a nominal roll of their men and then entered them in a book in alphabetical order, leaving several blank pages at the end of each company for additional names. Then I had two

columns, one for inoculations sub-divided for the two doses, and another for vaccinations, so that I could immediately see which company was in default with their men.

Although the King's Regulations say that a man must be vaccinated within forty-eight hours of enlistment, you will find it advisable to ignore this and inoculate the man first.

Inoculation is voluntary and vaccination compulsory. The inexperienced dread inoculation more than vaccination. If inoculated first, he finds his fears ungrounded and comes up readily for vaccination, which is often much more serious. If you vaccinate first and the man gets a bad arm he will probably decline inoculation.

I don't think you can take too much trouble to make your vaccination aseptic. My practice is to have a large patch painted on the arm with strong iodine; never vaccinate on the forearm if requested to do so, by those in the know; efforts are made to suck out the lymph. After the patch has dried about five minutes scrub a bare spot out of the middle of the patch with monkey brand soap dipped in methylated spirits, and clean up with cotton wool. If you vaccinate straight on to the iodine patch you sterilise the lymph and obtain no result. After you have vaccinated on the clean skin cover the place with a pad of double cyanide gauze fixed on with narrow strips of plaster nearly encircling the arm. If you are then careful to see that from the sixth to the tenth day they get no heavy duties you will get good results, as it is the constitutional effect, not the big scar due to a septic ulcer, that gives the protection.

Even with all my care, the shirkers managed to spoil one of my inoculation parades.

I had sent the company two lists of men I required to parade. The first consisted of men who had been vaccinated, but who, not having been to sick parade with an arm requiring redressing, had not given me a chance of seeing whether it had taken. The second list was the names of men requiring to be inoculated. The vaccinated paraded first and I was much annoyed to find men, who I knew had taken and whose names were not on the list, presenting themselves for inspection, and sent them back to duty with a flea in their ear. The men who afterwards remained for inoculation were woefully short of their number. Then, when too late, I tumbled to it, it was no fault of the company, it was initiative on the part of many who, having been vaccinated, wished to defer their inoculation.

On another occasion whilst inoculating a large batch, the stream suddenly dried up. On calling to my corporal in the next room who was taking down the names in the old style I found that the obstruction was a lad who declared he had already had his first dose and was now coming for his second. My corporal could find no record of a first dose and didn't believe him.

I said I couldn't wait and would take the lad's word, which pleased him and disappointed my corporal, as being subversive of discipline. The lad brazened it out and abused my corporal for having missed his name. It struck me that he was rather overacting the part, so said, "not at all, you ought to be jolly well obliged to Corporal Abernethy for trying to take care of you. You see he knows what you, of course, don't know, and that is that this last lot of vaccine we are using to-day had a covering letter saying it was extra strong and that great care should be taken that the men should only get the exact dose. Now you'll understand that if you get a second dose instead of a first it's your affair and not mine. The second dose is just double the first, and it will be interesting to see if it kills you or simply flattens you out. It's your funeral, not mine, my son," and then as I lifted the syringe, his nerve gave, and he said, "I ain't so sure, perhaps I'd better start with a first dose. Don't you think so, sir?" I said "I don't think, I'm sure." Calling to Abernethy, I said, "Put Rowlands down for his first dose," and the laughter of the waiting queue told of another subterfuge gone wrong.

You will have concluded that such cases would inevitably spoil my statistics. Well, my statistics did go wrong, but from another cause.

I had diligently bullied and implored my brother officers to send their men up for inoculation, and week by week the percentage of men fully protected against typhoid mounted up until in Christmas week we finally achieved the desired result of 100 per cent.

But the fly in the ointment was that although the strength of the battalion, as obtained that day from our orderly room, was 902 and the number fully inoculated was 902, yet strangely enough there were 25 men on our list awaiting their second dose and another 30 who had never been inoculated at all.

I sent Abernethy over to the orderly room to see if by any chance they had made a slight mistake of 55 in their number, a question which made them snort, and then tried our books again, but all to no purpose.

So as the poet says virtue is bold and goodness never fearful I sent my statistics just as they were to the D.D.M.S. with a covering note explaining that though irreconcilable with the truth, they were honest; that I would do my best to discover the source of error; that statistics were not my forte and that the present imbroglio reminded me of certain statistics of the Guy's lying-in charity which I as senior obstetric had to compile at the end of one December. This was rather a big job as the confinements during a year averaged 4,000.

Apparently my predecessors had not been careful in their entries because when I came to add up the grand totals I was confronted with the extraordinary fact that although there had been one case of four at a birth, five cases of triplets and scores of twins, yet the total number of women confined was considerably in excess of the number of live and still births combined.

My letter achieved its object of turning aside the hand of wrath and subsequent investigation showed that the error was due to not accounting for the men who after being inoculated had been struck off the strength through discharge, desertion or transfer to another unit. What was more satisfactory was that at the new year the D.D.M.S. complimented the Colonel on the excellence of the battalion results in vaccination and inoculation.

One of your early discoveries will be the amount of clerical work involved in your duties. You are presumed to get through an amount of writing which would keep you and your corporal at it till "lights out" every night. Therefore try and increase your staff from its ridiculous establishment of two orderlies which must have been fixed upon when men could not write.

Whenever you come across an intelligent private who has been a clerk in civil life make a note of his name. Then when the C.O. or some other officer wants something in the statistical line profess willingness and then keep him waiting until he says he would willingly lend you a man for a day or two, but that he knows of none fit. Then comes the time for your little list. When you get your man make him comfortable and forget to return him. Always remember in borrowing a man that the lender's tendency is to get rid of rubbish, hence the reason for the little list.

Everything depends on a good system. Buy a dozen strong paper clips. Cut up brown paper to form covers and then label one Correspondence, another Discharges, another Sanitary Reports, and so on. About the most important item is a letter book with columns for date, subject of letter, addressee, and make it a rule never to part with a document without getting it signed for.

You will find every old hand in the army using a letter book. Without it you will get into lots of trouble through orderly room receiving something important, losing it and then swearing they never had it.

Especially as regards the transfer of anything of value, no one in the army is supposed to be trustworthy, hence forms having to be rendered in triplicate.

Do not mistake this for red tape. You will find the quartermaster very particular in getting you to sign for everything. In return be particular in getting receipts for anything leaving your hands, and be careful to preserve the receipts for long after, or else some day you will find yourself held responsible for the possession of something which left your hands months ago. It may be a scrubbing brush or it may be the whole equipment of a hospital, and of the two the odds are that the scrubbing brush will give rise to more correspondence.

In one reserve battalion we had three Lieut.-Quartermasters who had drifted in from other battalions which had apparently not wanted them.

Owing to their service instincts leading them to shift their duties and responsibilities on to one another there arose lots of annoying muddles. Finally, being called upon by the C.O. to report to him in writing about the latest muddle which affected my department, I fondly believe that I gave the coup de grace, otherwise known as the knock-out, to this irregular system by saying that I thought it arose from want of recognition of the simple arithmetical truth that three-quarters was worth less than one.

Of course, you will come across irritating cases of red tape, but it is becoming agreeably rare in the army, and after all it is only a strong sense of humour which will enable you to enjoy life in the army.

To find red tape in all its luxuriance you you must go to the Civil Service. There clerks and still more heads of departments play it in their abundant leisure as a game of skill against some one in another department.

A choice example once given to me concerned a lighthouse-keeper of unsteady habits who, returning home one evening in his sinuous course, fell down a cliff and not being found till next morning died from the consequent exposure and his injuries before the doctor, who was summoned from a distance, could reach him. The man was duly buried and the light-house superintendent duly paid the doctor's fee of half a guinea, and there you would have thought the matter ended. Bless your innocence, it was just beginning. At the end of the month the lighthouse superintendent forwarded particulars of the disbursement to the Elder Brethren of Trinity. These allowed it and passed it on with their recommendation to the Board of Trade, which also allowed it and passed it, with its imprimatur, to the Exchequer and Audit Department. Here it fell into the hands of a gentleman of leisure, a deputy third-class clerk in that august and potent body, who saw in this incident an opportunity for a game in the Civil Service method.

He disallowed the claim as grossly irregular in that column 7 in the voucher had not been filled up. According to regulations, column 7 must contain the signature of the person to whom the medical services had been rendered on which the claim for authority for the disbursement was founded.

The correspondence was accordingly returned to the Board of Trade, who added to the growing pile a polite note with the legend "for your information and guidance," and sent it to the Elder Brethren of Trinity, who added their little note "for your information and immediate attention," and so at last it reached the superintendent of the lighthouse. He, honest man, indignant at the want of commonsense shown by the higher authorities, wrote explaining that the man was dead before the doctor arrived, that he did not know of any case of a dead man signing a document and that it was unreasonable to expect such a thing. He submitted that in this case the regulation might well be ignored and the signature dispensed with. With the addition of this appeal the bundle travelled all the way up again, both intermediate departments agreeing that the explanation was reasonable and that the case warranted exceptional treatment.

When the bundle again left the Exchequer and Audit Department the top letter was a curt announcement: This claim is entirely irregular and for reasons given cannot be countenanced—see minute January 15th.

Here the matter would have ended, and was expected to end, but that the red tape expert overlooked two little facts, one being that at a lighthouse there is plenty of time for thinking, the other being that half-guineas are not so common there as not to be worth a thought.

In fact, a committee sat on it and on going through the pile found an idea in the superintendent's letter about dead men's signatures. Accordingly next time the bundle travelled upwards it contained a new voucher in which Column 7 bore the dead man's signature.

On it's journey it awakened interest, as it was evident that the gentleman in the Exchequer and Audit Department had met a foeman worthy of his steel.

As might be expected, on its journey downwards it bore a stern rebuke: "How do you reconcile the signature on this form received May 16th with your statement of February 20th that the man's signature could not be obtained because he was dead. This is becoming serious and the Department are inclined to take a grave view of the irregularities disclosed."

When the bundle again made its upward progress it was hailed with delight and its journey somewhat delayed owing to its being shown to friends at the intermediate departments.

What the Exchequer and Audit gentleman said on its arrival is not known, nor is it known what became of the correspondence, for this was never seen again, its place on the homeward journey being taken by a draft for 10s. 6d.

The explanation which caused the Exchequer and Audit Department to haul down its flag was as follows: In searching through the effects of the deceased, unexpected evidences of innate thrift were discovered, and it appears that the deceased must have had some extraordinary premonition of the nature of his end for amongst his private papers were found various blank forms bearing his signature. More can be forwarded for inspection should this be desired.

(To be continued.)

Guy's Hospital Nurses' League.

THE Twenty-Fourth Annual General Meeting and the Sixteenth Annual Dinner of the Guy's Hospital Past and Present Nurses' League was held in the Nurses' Home on Friday, May 2nd, 1924.

Dinner was served at 7 p.m., but many of the guests arrived soon after 6 o'clock for the purpose of seeing the needlework and photographs sent in for competition, and also to have an opportunity of meeting old friends. The Dining Hall was filled to its utmost capacity and a table was also laid on the Balcony overlooking the hall. The tables looked very bright and charming with their yellow daffodils, orange paper serviettes and glittering glass. Everyone thoroughly enjoyed the menu, and the Home Sister and those helping her were to be congratulated upon the efficient manner in which the arrangements were carried out.

After Dinner the Annual General Meeting was held in the Recreation Room. Miss Hogg, the Matron and Hon. Secretary of the Nurses' League, said she was pleased to welcome so many friends that evening and she was sure everyone was delighted to see Miss Haughton with them again. She had received many letters from Members all over the world regretting that they could not be present. Miss Victoria Jones, a former Matron, had written saying that she was now too old to attend Meetings at night, being nearly 90 years of age. She was sorry that Dame Sarah Swift, who had always attended the Meetings, was unable to be present as she had not been well and was having a long rest in the country; Dame Sarah sent her happiest wishes. She had also received greetings from Guy's Nurses in Dublin and also from Scotland.

The Matron then asked Mrs. McRae to take the Chair and said an introduction was unnecessary, as many of those present remembered her as Sister Surgery and Sister Addison. Although Mrs. McRae was not present at the Meeting last year, they would all remember special attention being called to the antlers decorating the Entrance Hall, which had been procured from wild beasts which she had shot.

Mrs. McRae then took the Chair amid applause, and the Minutes of the last Annual General Meeting were taken as read and signed.

The Report of the year's work was next read by the Matron, as follows:—

About 80 Present Members have been transferred to the Past Section during the year. We have, however, lost trace of about 40 old members, the Nurses' Register and our other communications having been returned to us through the post.

260 "Week-ends" and "Days Off" have been spent at the Cottage during the year and over 1,100 short visits have been paid for breakfast and tea.

1,570 volumes have been taken out of the Nurses' Library during the year and about 50 new volumes added.

The Nurses' Tennis Club again took part in the Tennis Tournament arranged by the *Nursing Times*. The competition for the Challenge Cup was keener than ever, the Hospitals and Infirmaries entering being more numberous than in former years. After several well contested games, we were successful in entering for the Final, but were defeated by St. Thomas's Hospital Nurses. On the day selected for the match the weather proved most unpropitious, and the match was played in a heavy downpour of rain. More uncongenial conditions for a Tennis match could not be imagined, the Courts becoming so slippery that it was as much as the players could do to keep their feet, and the winners were to be congratulated on their excellent game. The Guy's Team are hoping to bring the much coveted Cup back again this year.

The entries for the Fagge Cup Singles Competition were again very numerous, and some excellent matches were played before the Semi-Finals and Finals were reached. A most enjoyable afternoon was spent on the occasion of the Final Match, when about 70 guests assembled at the Cottage. The four Finalists were Nurses Stubbs and Taylor and Sisters Cornwall and Johnson, Nurse Taylor and Sister Johnson winning respectively two sets out of three, and in the Final after a long and well fought game, Sister Johnson won the Cup by two straight sets. Mrs. Fagge presented the Cup to the winner with a first prize given by Mrs. Mollison, who also gave a second prize to the runner up. Mrs. Mollison again very kindly coached the team, and the many valuable hints she gave were greatly appreciated by the Nurses.

The Nurses' Swimming Club was successful in winning for the third time the Silver Challenge Cup offered by Sir Alfred and Lady Fripp, at the Inter-Hospital Swimming Sports held at the Bath Club in June, and in July our team went to the Tottenham Municipal Baths to compete for the Holmes Vase given by the Governors of the Prince of Wales Hospital in memory of a nurse, and were again successful in winning the Vase. In order to raise interest in the Nurses' Inter-Hospital Swimming Club, it was decided to hold a Gala independent of the Men's Club. The event, which was held at the Automobile Club Baths proved a great success, between 60 and 70 Nurses entering from different Hospitals, and Guy's Nurses were successful in winning several prizes which had been provided by the generosity of those interested in the Club. Our own Swimming Sports in the Nurses' Home had to be postponed on two occasions, and the Silver Challenge Cup presented by Lady Fripp has been competed for this afternoon, the winner being Nurse P. Holmes.

The Nurses' Choral Society and the Nurses' Dramatic Society in conjunction with the Guy's Hospital Musical Society has had a very successful season. In February, three very enjoyable performances were given to crowded audiences, all available seats being taken each evening. The entertainments proved such a success financially, that the Committee after paying all expenses and putting a substantial sum in the Bank for future use, were able to give the Nurses' League a cheque for £25 for the Cottage Fund, which generous gift is greatly appreciated.

Over 1,300 copies of the new edition of the Nurses' League Register were sent out with the League Supplement at Christmas. Up to the present time we have received a sum of £75 1s. 4d. from 491 Members. Donations are, however, still coming in from Members abroad, and if another 150 Members send in the sum asked for at our last Meeting, we shall receive £100, which would be a great help in defraying the cost of printing, etc., which amounts to £337 15s. We are also hoping to receive about £50 for advertisements.

As regards the Cottage at Honor Oak, I have a very satisfactory report to present to you. When Mr. Cosmo Bonsor heard what had been done and what an effort was being made by the Nurses to raise money to pay off the debt of £900, he in his ever generous and kind way, brought the matter before the notice of the Governors of the Hospital and an arrangement has been arrived at as to the future tenure of the Nurses' Cottage at Honor Oak.

The freehold belongs to the Governors of the Hospital and the Nurses' League had from the time it was bought been repaying by instalments the cost of the purchase and in a few years time would probably have found all the original outlay and should in equity have become possessed of the freehold.

It was found that the Nurses' League not being a Corporate Body could not hold freehold property, and the Governors recognising alike the equity and the difficulty of the position have granted a 999 years lease to Trustees to hold the Cottage and grounds in trust for the Nurses past and present of Guy's Hospital.

The Trustees appointed by the deed are the President of the Nurses' League, the Matron and the Superintendent of Guy's Hospital.

By this arrangement perpetuity of tenure for 999 years is secured and the Nurses' League have absolute possession and control of the property, subject to the payment of a rent of £27 a year.

I am sure you will all be pleased to hear that we are free of the debt which has been such a drain on the funds of the Nurses' League for so long. All that we have to pay now is £27 each year, and I hope we shall meet this as follows:—The donations to the Cottage Fund have amounted to £298 8s. 5d., and it has been suggested that this sum should be invested and form a nucleus to which we can add in the future, and the dividends of the accumulated Capital would help to pay the ground rent, and by degrees we would pay the whole of the rent from invested funds. At last we have accomplished a great thing for our Past and Present Nurses' League, which was started by Dame Sarah Swift years ago, and the Nurses of the future will feel that the Cottage really belongs to them.

With regard to the Exhibition now on view:—

The Needlework Exhibits were again judged by Mrs. Burgwin, and she said it was one of the best Exhibitions we had held as regards the excellence of the work. The plain needlework and the Embroidery Classes were both exceptionally good, and she had great difficulty in awarding the prizes, as all the work was so excellent.

The Photographic Exhibition was also a great improvement on the last one, a greater number of Members sent in photographs and the work was of a much higher standard. This year a new innovation was introduced, the awards being by popular vote, much enthusiasm and excitement was shown by the Present Nurses, who anxiously scanned the exhibits before recording their votes.

The Prizes for the Exhibitions were given by Lady Fripp, Lady Hale-White, Mrs. Cosmo Bonsor, Mrs. Doubleday, Mrs. Eason, Mrs. Fagge, Mrs. Humphery, Mrs. Mollison, The Hon. Mrs. Molyneux, Mrs. Robarts and Mrs. Rowlands.

Since our last Meeting I regret to record the death of four of our Past Members:—

Miss Margaret J. McLaren, who died in a Nursing Home, on August 11th, 1923, following an operation. Miss McLaren entered Guy's as a Probationer in September, 1908, and on completion of her training took up private nursing.

Miss Eunice Leedham, who died after a long and painful illness on September 5th, 1923. Miss Leedham entered Guy's as a Probationer in November, 1890, and on completion of her training joined the Guy's Hosital Trained Nurses' Institution, remaining there until she retired in February, 1921.

Miss Minnie Evelyn Windemer, A.R.R.C., who died at her Nursing Home on November 19th, 1923, following an operation. Miss Windemer entered Guy's as a Probationer in June, 1900, and on completion of her training in June, 1903, joined the Private Nurses' Institution. In April, 1904, she returned to the Hospital as one of the Sisters in Charge of the Preliminary Training School, and in 1906, she was appointed Sister-in-Charge of Bright Ward, which post she held until April, 1910.

Miss Ethel M. Latham, who died at Croydon on December 17th, 1923, after an illness of some months' duration. Miss Latham entered Guy's as a Probationer in February, 1899, and on completion of her training, joined the Private Nursing Staff, remaining there until 1920.

In the absence of Mrs. Hughes, the Hon Treasurer, I have much pleasure in presenting the financial statement for the year. The Hon. Members' subscriptions amount to £45 4s. The Present Nurses' subscriptions, which vary slightly each year, show an increase of £1 15s. Past Members' subscriptions and Composition Fees amount to £123 5s. The subscriptions and grants have again more than covered the working expenses of the Cottage and different Clubs, and also paid a sum of £29 3s. 4d., part cost of the railway tickets to Honor Oak Park for the Nurses. The cost of printing and publishing the Nurses' League Register amounted to £337 15s., and I am glad to say that although our expenditure has this year exceeded our income, we have been able, with the balance carried forward from last year and the donations received towards the cost of publishing the Register, to meet this heavy expense, and to carry forward a balance at the Bank of £37 2s.

The adoption of the Report was moved by Miss MacManus, Matron of the Bristol Royal Infirmary and seconded by Miss Hughes, Matron of the Infant's Hospital, Vincent Square.

The Matron next announced that in January the Bi-Centenary of the Hospital would be celebrated, and she would like to have suggestions from those present as to the way in which they would like to celebrate the event.

Mrs. McRae then addressed the Meeting and said she had been asked to say a few words with regard to her shooting exploits in East Africa. But instead of being proud of killing, she felt far more inclined to apologise to the beautiful creatures whom her rifle had slain. Shooting them, however, was as much a matter of necessity as of sport. There were no butchers' shops in East Africa, and if you did not take life you would get nothing much to eat. Moreover, the natives were not allowed to carry rifles, but they were exceedingly fond of meat, and therefore the killing was not all done for oneself. She thought personally that it was rather horrid to be one's own butcher, more especially when one had seen in the early dawn, as she had, the many beautiful creatures at play, including the eland,

which often stood as high as six feet to the shoulder. She enjoyed her life in East Africa very much, though often her thoughts flew to Guy's, and on Saturday night she just longed to be back hard at work in the Front Surgery.

She then asked for suggestions with regard to the Bi-Centenary. She herself thought that it might be possible for the League to endow a bed in the Hospital for a Sick Nurse. After considerable discussion in which Mrs. Shine, Mrs. Willox, Miss Haughton. Miss Jolley, Miss MacManus, Miss Rowell and Miss Sheldon took part, it appeared to be the unanimous desire of those present that the Guy's Hospital Nurses' League should among it's 1,600 Members, give or collect sufficient money to endow a bed, and a small Committee, consisting of The Matron, Mrs. Hinchliff, Mrs. Shine, Mrs. Wilding, the Misses Brennand, Harradine, Haughton, Maher, Martin, Moore, Robins, Rowell and Studdert was formed to carry out plans and suggestions for collecting the £1,000 required.

So much enthusiasm was shown by the Members that promises of a sum amounting to nearly £40 was received during the evening.

The Meeting concluded with votes of thanks to the Hon. Members of Council, to the various Officers, and to Mrs. McRae for presiding, and a special vote of thanks was proposed by Miss Coulton to the Home Sister, who had worked so hard to make the evening such a success. Tea and coffee were then served, after which the Members gradually dispersed, having spent a most enjoyable evening.

During the afternoon, the Swimming Contest was held for the Silver Challenge Cup presented by Lady Fripp. Miss Daly, of the Bath Club, kindly consented to judge the events.

On conclusion of the Swimming Contest, Mrs. Cosmo Bonsor, the President of the Nurses' League, presented the Butterworth Medals for 5 years service to several of the Sisters, and also the Gold Medal and Prizes won by the Nurses gaining the highest marks in their Examinations during the year, the prizes gained in the Needlework and Photographic Exhibitions and the Silver Challenge Cup presented by Sir Alfred and Lady Fripp. The Gold Medalist, Nurse A. H. Mathews, on behalf of the Nurses, then thanked Mrs. Cosmo Bonsor for the great interest she had taken in their welfare and presented to her a bouquet of lilies and pink carnations. Sister Burton proposed a vote of thanks to Miss Daly for all her kind interest in the Swimming Section of the Nurses' League.

LIST OF AWARDS.

The Butterworth Medal.

The Butterworth Medal, instituted by Joshua W. Butterworth in 1889, is awarded to all Nurses of Guy's Hospital who shall have completed 5 years continuous satisfactory service at the said Hospital.

Sister Dorothy G. Griffiths.
Sister Brenda Wilson.
Sister Lucy Andrews.
Sister Winifred A. Johnson.

Cazenove Medal.

The Caznove Gold Medal awarded to the Nurse who shall have obtained the highest aggregate percentage of marks in the Examinations held during 1922 and 1923.

Nurse Ada H. Matthews.

The Keogh Prize.

The Keogh Prize, consisting of Surgical Instruments, awarded to the Nurse obtaining the highest number of marks in the Surgical Examination.

Nurse Nora M. Kersley.

The Morrison Prizes.

The Morrison Prize, Medical Books, awarded to the Nurse obtaining the highest number of marks in the Examinations in Medicine and Nursing subjects.

Nurse Eva M. Knowlton.
Nurse Margaret E. Robbins.

The Governors' Prizes.

The Governors' Prizes, Medical Books, awarded to Probationers obtaining the highest number of marks in the Preliminary Examinations held during 1923.

Nurse Irene E. Richardson.
Nurse Minnie D. Cook.

PHOTOGRAPHIC EXHIBITION.

Class A.

Prize.—Swans at Newley Bridge, Windemere. Miss Betty Dixon.

Highly Commended.—Moonlight. Nurse Hummerstone.

The Stream. Miss M. Phillips.

Class B.

Prize.—Falls on Route to St. Bernard. Nurse Foster.

Highly Commended.—At the Foot of the Moors. Sister Looker.

The Lake. Nurse Morton.

Class C.

1st Prize.—The Eternal Eve. Nurse Lewis.

2nd Prize.—Views of India, "Agra." Miss A. M. Carpenter.

3rd Prize.—A Yorkshire Stream. Nurse C. Clark.

Highly Commended.—Rogie Falls, Invernesshire. Mrs. Tatham.

Collection of Snapshots. Nurse Bush.

NEEDLEWORK EXHIBITION.

Section I.

(Unwashed Exhibits.)

A. *Plain Needlework* (Classes 1 and 2)—
1st Prize.—Nurse Calver.
2nd Prize.—Miss C. Pearse.
3rd Prize.—Mrs. Bates.
Highly Commended.—Sister Theatres, Nurse Van der Pant, Miss Child.

Patching and Darning (Class 3)—
Prize.—Nurse B. Wood.
Highly Commended—Staff Nurse Cripps, Staff Nurse Allen, Nurse Massey.

B. *Fancy Work*—
1st Prize.—Miss Collier.
2nd Prize.—Miss Hockin.
3rd Prize.—Sister Dorcas.
Highly Commended.—Miss C. Pearse, Miss L. Dixon, Miss H. Taylor.

C. *Lace* (Class 1)—
Prize.—Miss R. Lyons.
Highly Commended.—Nurse Thorpe.

Knitting (Class 3)—
Prize.—Sister E. Elliott.
Highly Commended.—Miss S. Edwards, Nurse Probert, Nurse Verdon.

E. *Miscellaneous* (Dressmaking, Millinery, Basket Work, Leather Work, Wood Carving, etc.)—
Prize.—(Basket Work) Nurse Massey.
Highly Commended.—(Dressmaking) Sister Croker, (Millinery) Nurse Thorpe, (Basket Work) Nurse Collyer, (Wood Carving) Nurse Jillings.

SECTION II.
(Washed Exhibits).

A. *Patching* (Class 3)—
Highly Commended.—Nurse Massey.

B. *Fancywork, etc.*—
1st Prize.—Staff Nurse Crump.
2nd Prize.—Miss F. E. Ford.
3rd Prize.—Staff Nurse Andrews.
Highly Commended.—Nurse Holroyde, Nurse B. Hill, Nurse Weston, Miss A. Pilkington.

C. *Lace, Crochet and Knitting* (Classes 1, 2 and 3)—
Prize.—Nurse Ferguson, Nurse Hacking.
Highly Commended.—Nurse Alchin.

Election for the Dental Board of the United Kingdom.

To Past Dental Students of Guy's Hospital—

Being an old Guy's man, I appeal to all past Dental Students to record their vote in my favour at the coming Election.

Send a Guy's man to represent you on the Dental Board of the United Kingdom.

I stand for—

1. The rights of the qualified dentist.
2. The most rigid regulations against any form of advertising.
3. Adequate remuneration for whole-time Dental Officers.
4. Adequate fees for Dental Surgeons undertaking contract practice.
5. Income limit for members of the Co-operative Societies requiring dental work at contract fees.
6. Rigid enquiries to be made of foreigners applying for admission to our Register.
7. Reciprocity from foreign countries whose members are admitted to our Register.
8. No licence fee for ladies and gentlemen holding a degree or diploma in Dental Surgery of a recognised dental school.

I represent no particular Society or Association, but simply the profession at large, and if elected will do all in my power for its uplifting.

I served during the War from 1915-19 and for some time was Inspecting Dental Officer of the Eastern Command.

I am now a Captain in the Army Dental Corps Reserve of Officers.

I belong to the following Societies—
(a) Member of the British Dental Association.
(b) Fellow of the Royal Society of Medicine.
(c) Fellow of the British Society of Dental Surgeons.
(d) Member of the Royal Institute of Public Health.
(e) Member of the Ivory Cross.

I appeal to the electorate to vote for me, and so enable at least one candidate to represent them on the Dental Board, who is free to act in the best interests of the profession, and not tied down by a policy of any Society or Association.—I am, Yours faithfully,

R. M. WORMALD,
L.D.S., R.C.S.Eng.

6, Marlborough Place,
Brighton.

Correspondence.

The Wills Library.

DEAR SIR,—I am enclosing a list of books missing from the Wills Library, of which no trace can be found. Would you be good enough to publish the list in the GAZETTE in the hopes that the borrowers will return them as early as possible.

Much inconvenience is being caused by their continued absence, and in the event of the missing books not being recovered, perhaps an old "Guy's man" would be good enough to present a copy to the Library.—I am, Yours very truly,

GEO. A. WINSTON,
Librarian.

The Wills Library,
Guy's Hospital, S.E.1.
June 2nd, 1924.

Missing Books :—

Jellett's Gynæcology.
Mummery—Microscopic Anatomy.
Johnston's Midwifery.
Steven's Gynæcology.
Bayliss—Principles of General Physiology.

Scoring in Rugby Football.

DEAR SIR,—Dr. Linnell in his letter says he has forgotten the scoring in Rugby Cup-Ties. In 1888 it was 25 points for a goal, 10 for a try, and 1 for a touch-down. One score piled up by, I think, St. Thomas's, was—

13 goals, at 25 points	325
6 tries, at 10 points	60
6 touch-downs, at 1 point ...	6
Total	391

As to one goal beating any number of tries, I remember a game at school in which we were heavily overweighted, but emerged as winners by one goal to five tries, a result which so much excited the headmaster that he nearly broke his stick on his favourite dog which was incautiously standing near.—I am, Yours faithfully,

R. L. WASON.

1, South Side, Clevedon,
April 29th, 1924.

[Dr. Linnell's letter on this subject appeared in our issue of April 26th.—ED.]

Courtesy at Guy's.

SIR,—A few days ago I visited the Hospital bearing with me two kidneys and a heart, which I was ignorant enough to consider might be of interest to the Demonstrator of Pathology and his class. I had obtained them from the body of a lunatic whose P.M. I had made the day before.

As it is many years since I "trod the Colonnade" of Guy's, and as I had not seen the P.-M. Room since the time when Dr. French was Demonstrator there, I inquired of two students the way to the room and got for an answer the curt reply "round the corner." I dug it out eventually, being assisted in my search by two more kindly students.

The Demonstrator came in, stared at me, but said not a word. I do not know his name. He began to talk to one and another, and just ignored me. Also my precious burden. I stood quietly and patiently behind him and mentioned the fact that I had some specimens to show. Finally, after quite half an hour of waiting he condescended to look at what I had brought. As I had been a P.-M. Clerk at Guy's (under Dr. Goodhart) possibly years before he was born, I felt that times and manners had changed. In my day, if Dr. Goodhart spied a stranger he invariably spoke to him and extended a hand of welcome and included him in his demonstration. Apparently all such had now better keep away from Guy's. Not wanted.

May I mention that there is a vacancy here for a third junior A.M.O. Salary, £300 a year, with board and laundry. The work is very light. Plenty of time for reading and attending post-graduate classes. The work is interesting and instructive, and special knowledge gained here would be of considerable advantage to any medical man in later life.—Yours, etc.

T. REUELL ATKINSON,
(Locum Tenens, retired.)

West Ham Mental Hospital,
Goodmayes,
Ilford, Essex.
May 16th, 1924.

[It is with the greatest regret that we have learned of this impression, gained by an old Guy's man on a visit to his Hospital. In an Institution like ours, where there are over nine hundred Students, it is quite impossible for the Professors and Demonstrators to know each one personally, and a stranger among the usual members of a class is of so frequent occurrence that a lecturer may be forgiven for not recognising him as a guest. He is usually a student from another part of the Hospital. No one would, we feel sure, be more anxious to correct the impression of studied discourtesy to a visitor, than the Demonstrator mentioned in the above letter, whoever he may have been. We hope that Dr. Atkinson will visit us again soon and discover that an old Guy's man is always welcome at his Hospital.—ED.]

The Junior Guyite Club.

The 38th Annual Dinner.

THERE is, we believe, an excellent rule belonging to this Club, proscribing any member who dares to entertain himself with a speech immoderately long. It is a rule which the numerous other Clubs attached to the Hospital might advantageously take note of as a preliminary measure for brightening up their dinners. In future let retribution swift and sure fall upon the loquacious. Nor is it in this direction alone that Junior Guyites are to be followed; for, with one exception, their dinner of this year, held on May 22nd at the Restaurant Frascati, was enthusiastically and joyfully attended in comparison with others at which we had previously been present.

A stranger entering upon the scene would have found none of Dr. Johnson's "unclubables," On the contrary, he would have witnessed the general consternation into which R. M. H. Randell threw all members by suggesting merely that the annual dinner should become bi-annual. Such a proposal was, of course, vigorously rejected, and for the moment its proposer forfeited his popularity. It was not until after he had naïvely assured everyone that his suggestion had been ventured only as a test of their loyalty, that he regained the confidence of the company. To all club secretaries fearful of their dinners being consumed in sorrowful silence we humbly submit that they should invite one or two Junior Guyites.

The following members were present—E. W. Goodall (President and Temporary Hon. Sec.), C. H. Fagge (Vice-President), F. Beard, F. Cook, J. W. H. Eyre, H. French, G. W. Goodhart, N. E. Kendall, S. E. Prall, P. N. Randall, R. M. H. Randell, R. F. Routh, J. A. Ryle, W. J. D. Smyth, C. P. Symonds, A. R. Thompson, A. M. Zamora, H. B. Marriot, A. E. Price, H. G. Ashwell, and J. P. Howell.

The following guests were present:—R. Hearn, W. D. Doherty, C. H. Atkinson, J. J. Conybeare, and G. G. Cameron.

The following were elected new members:—J. R. Cox, H. N. C. Collyer, W. D. Doherty, J. J. Conybeare, G. G. Cameron, C. H. Atkinson, R. Hearn, A. T. Rogers, P. B. Laidlaw, E. Goodall, and J. Bastard.

The officers appointed for the dinner in May, 1925, were :—President: C. H. Fagge, Esq. ; Vice-President: Dr. J. P. Howell.

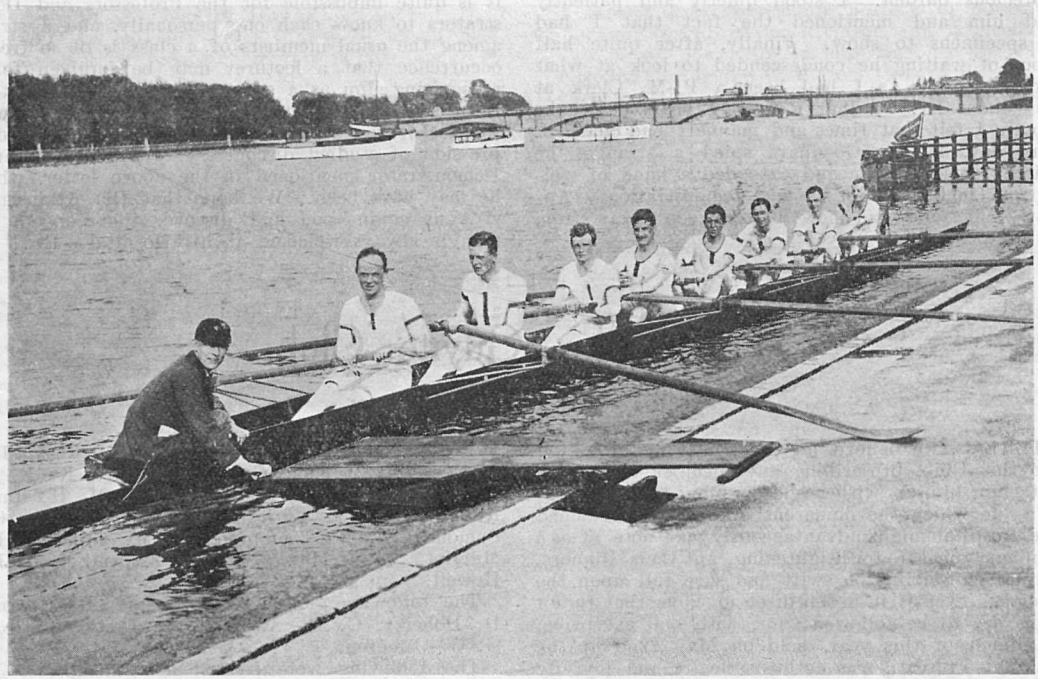
Before the formal business was proceeded with, the President referred to the great loss the Club had sustained through the recent death of its Hon. Sec., Dr. J. A. ("Jimmy") Fraser. He revived the Club some 22 years ago when he became its Hon. Sec., and its recent prosperity has been entirely due to him. His memory was drunk in silence, the company standing.

Reference was also made to the fact that next year would be the 50th Aniversary of the founding of the Club, when it is hoped there will be an unusually large attendance.

Guy's Hospital Rowing Club.

ON Wednesday, May 21st, the Guy's Eight won both their heat and the Final of the London University Eight-oared Races, and so the Allom Challenge Cup. This success, though somewhat unexpected, was not altogether undeserved, as the training and practice work had been as thorough and continuous as the Hospital work of individuals in the crew could be made to allow. Considerable keenness was displayed, and thanks are due to those more senior members of the Eight who (despite harassed consciences and stubborn predilections for work) succumbed to the importunate demands of those in charge. In this connection are K. O. Parsons and F. C. Miller particularly to be mentioned, though everyone was bound to make a measure of sacrifice for the three weeks of evening rowing at Putney. We are also very grateful to Mr. Hylton Cleaver, of the London Rowing Club, for coaching the Eight as far as was possible during the limited time available, and to the London Rowing Club Authorities for the loan of an ancient but satisfactory light boat, without which our entry could not have been made. Unfortunately the dates of the University Sports and Regatta coincided, with the natural result that our supporters at Putney were few, but the enthusiasm of those who did attend greatly inspired the Eight, who much appreciated their presence. Among those who watched the Races was Mr. Tom Bird, late Anæsthetist to the Hospital, who rowed in the Inter-Hospital Race sixty years ago. It is perhaps worthy of note that this is the first time that a Hospital has won the London University Races, and that Guy's were the only Hospital to enter. Usually the Inter-Hospital Race interferes with the University event, but great hopes are entertained that we shall be able to compete in both races next year, when Bart.'s should again contest the Hospital Cup which Guy's have held since 1920.

As to the races, in the Preliminary Heat University College had the Surrey Station, the School of Economics centre, and Guy's, Middlesex. For about a minute after the start (from the University Stone) the three boats were fairly level, but Guy's were rowing about 32 to what must have been the 38 or 40 of the other two; thus the Hospital crew held their own comfortably, and, without increasing their rate of striking, gradually obtained a lead of some two and a half lengths, and maintained this distance to the finish at Harrod's Wharf. In the Final, we met East London College, and a much closer race resulted. Our opponents had previously defeated King's College in the other heat, and were altogether more formidable in view of the fact that they had been coached by F. W. Law, the Cambridge Blue. Guy's



THE GUY'S EIGHT.

Bow, E. T. Clifton. 2, R. F. Pritchard. 3, I. C. P. Beauchamp. 4, E. C. Huddy. 5, K. O. Parsons. 6, W. H. Miller. 7, K. S. Keele. Stroke, F. C. Miller. Cox, W. S. Grove.

again rowed a medium stroke, with the definite purpose of maintaining a respectable length, and, after an even minute along the Boathouses, gradually drew ahead. East London rowed a faster stroke, and keeping well together were overlapping Guy's at Beverley Brook. At the Mile Post about three quarters of a length separated the two boats, and this was gradually increased by Guy's to a lead of two lengths. East London then put in a spurt and reduced the gap, but Guy's answered and drew away. A final spurt by East London had a similar effect, but Guy's rowing harder and better than in the first heat, went away to win by a little over two lengths.

Miller's stroking was invaluable; while the crew as a whole achieved some degree of uniformity as the result of the familiar judicious combination of exhortation and threat, and fortunately rowed at top form in the Final. They displayed a willingness to shove really hard and row themselves out, a circumstance which greatly compensated for the lack of practice and the collective form which the latter should produce. W. S. Grove steered thoroughly good courses in the racing, and his invective (of the traditional type) had its due effect. The general keenness shown made the whole affair most enjoyable.

Despite all efforts to circumvent them, numerous difficulties, of which lack of the essential time for training and the remote locality of the more important Regattas are the chief, preclude further united activity until October. But with the arrival of the Autumn Term preparations for the coming season, in which the Inter-Hospital Races especially concern us, will begin, and rowing men in the Hospital are asked to give the rowing Club all the support they possibly can. All recruits, especially anyone weighing eleven or twelve stone, will be very welcome, as it is hoped not only to provide for the depletion of our ranks which the passage of each year makes inevitable, but also to augment our present total membership.

The Eight rowed in the following order :—

Bow.	E. T. Clifton.
2	R. F. Prichard.
3	I. C. P. Beauchamp.
4	E. C. Huddy.
5	K. O. Parsons.
6	W. H. Miller.
7	K. S. Keele.
Stroke.	F. C. Miller.
Cox.	W. S. Grove.

K. K.

F. C. MILLER receiving the Allom Cup from LADY ALLOM.

Papers by Guy's Men.

H. C. Malleson, M.R.C.S., L.R.C.P., L.D.S. A preliminary note on the Structure of Human Enamel as Revealed in Decalcified Sections.—*B.D.J.*, xlv., 1924, 601.

Arthur F. Hurst, M.D., M.R.C.P. The Treatment of Severe Gastric and Duodenal Hæmorrhage.—*Lancet*, i., 1924, 1095.

Change of Address.

H. P. W. Barrow, Colonel, Directorate of Hygiene, The War Office, Whitehall, S.W.1

J. M. Brydone, M.B.Camb., 9, Willow Crescent, S.W. 1.

T. B. Layton, 10, Welbeck Street, W.1, and Argyll Lodge, Atkins Road, S.W.12. Tels. Mayfair 3913 and Streatham 4322.

Reviews.

Internal Derangements of the Knee-Joint. By A. G. TIMBRELL FISHER, F.R.C.S. Pages xii.+144. Illustrations 80 on 40 plates. Published by Messrs. H. K. Lewis & Co., Ltd., London. Price 12*s*. 6*d*. net.

IN this book the author has put together most of the internal derangements of the knee-joint, together with some original observations of his own on the physiological and anatomical basis of their pathology. Part I. is concerned with the pathology and surgery of the semilunar cartilages, while the three chapters of Part II. deal with loose bodies, osteo arthritis and "certain other forms of derangement" respectively. It is a well written book and will well repay reading. One very important point is stressed on p. 54. "Perhaps one of the most regrettable facts in the treatment of bone and joint cases is the lack of co-operation between the surgeon or practitioner, who has performed the operation, and the masseur. It is not sufficient for the medical man merely to prescribe massage and exercises, but it is absolutely essential that he should be in a position to superintend the work of the masseur and to instruct the latter concerning the form that treatment should take. . . . the guidance the masseuse usually receives consists in the words 'massage and exercises' scribbled upon an out-patient card. . . A responsibility is thus placed upon the masseur, which the latter should never be asked to assume, and the delegation of this self-same responsibility reflects little credit upon the medical profession."

There seems to be an obvious misprint in the lower part of page 18. "Let us imagine that flexion is occurring, the tibia acting as the fixed point. The femoral condyles glide and roll upon the upper surface of the tibia and semilunar cartilages, until the external condyle of the femur is used up and the corresponding parallel part of the internal condyle. The remainder of the movement must occur at the expense of the curved portion of the inner femoral condyle. The femur therefore rotates *inwards* round the spine of the tibia." This should seemingly be "outwards."

On page 91 the author states "Although Sir James Paget denied the possibility of direct detachment by trauma" (of portions of articular cartilage to form loose bodies in the knee-joint) "clinical evidence has since accumulated that such detachments are possible, and it would appear that they may be produced not only by direct, but by indirect violence." None of this evidence is produced, which is greatly to be regretted.

On the whole, however, we repeat that it is a book that will repay reading.

Sunshine and Open Air. By LEONARD HILL, M.B., F.R.S. 1st Edition. Published by Messrs. Edward Arnold & Co. Price 10*s*. 6*d*. net.

THIS book does not contain a mere reiteration of the accepted uses of heliotherapy, but is written to elucidate the scientific facts which underlie the curative effects of insolation and exposure to the open air. As such the book is rather too scientific to make easy reading for the general practitioner or student, who is not well grounded in the physical sciences of light and heat. The careful tables, compiled as a result of tedious and painstaking investigations, are undoubtedly necessary to those who would understand the effect on the human body of the various wave lengths of the sun's spectrum, but for the clinician, who is not a specialist in heliotherapy, the book will probably be fatiguing.

With this reservation we recommend the book as one, admirably printed and illustrated and written in a very clear manner. The book opens up several lines of thought, including that of the sensitization to light, a field of therapeutics which is hardly yet explored. For those, who would know the modus operandi of the "sun-cure," we have seen no better short treatise than "Sunshine and Open Air."

Clinical Electrocardiography. By Sir THOMAS LEWIS. Published by Messrs. Shaw & Sons, 7 & 8, Fetter Lane.

THIS little book is an excellent introduction to the study of clinical disorders of the heart by graphic methods. The diagrams and corresponding text are extremely lucid and help to clear up many of the difficulties met in the ordinary study of heart disease.

The opening chapters on the mechanism and use of the galvanometer and the appearance of normal electrocardiograms are very valuable, while later chapters showing the relationship between extrasystole and paroxysmal tachycardia explain very clearly one of the least appreciated abnormalities of cardiac rhythm.

As a whole, too, it fits in very well with the other writings of the author on cardiac disorder and should be read with them.

Guy's Hospital Reports, Vol. 74 (vol. 4, fourth series) No. 2. Published by Messrs. Wakley & Son, Ltd., London. Price 12*s*. 6*d*.

THE latest number of the Reports contains eight articles, three of them being largely the result of laboratory work. "Megalocytic and non- megalocytic anæmias" and "Variations in the size of the red cells in some experimental anæmias in rabbits," are both the outcome of personal work and observations by the authors, while at the end of the number is a description of "the Hagedorn-Jensen method of estimating with blood-sugar." Sir William Hale-White, K.B.E., gives a short life-history of another famous Guy's man, Thomas Hodgkin, and Frank Cook, F.R.C.S., publishes a modified text of his Hunterian Lecture, delivered at the Royal College of Surgeons, on the "Toxæmias of Pregnancy." Further articles on "Diet and Hygiene in Rickets in Children in English Cities," "The Treatment of Aortic Aneurysm by Anti-Syphilitic Remedies," and "Rodent Ulcer, its Incidence and Treatment," complete a number, which contains many new and interesting observations.

Catechism Series on Public Health. Parts I. and II. Published by Messrs. E. and S. Livingstone, London. *Price 1s. 6d. per Part.*

A very readable synopsis of the salient features connected with public health from the examination point of view. Several pertinent questions are asked and dealt with in a very clear manner, the section on fevers being particularly good.

It falls rather short of the requirements demanded by the higher examinations.

Sport.

Guy's Hospital Athletic Club.

THE Guy's Hospital Sports were held at Honor Oak Park on Wednesday, May 28th. The weather for once favouring us, the sun shone, and C. L. Steyn ran, in his usual brilliant way, winning the 100 yds., 220 yds., 440 yds., and long jump and thereby winning the Clement-Lucas Cup for the fifth year in succession!!! which I believe is a record. Heartiest congratulations to this versatile athlete, who has been selected to represent South Africa in the Olympic Games. All Guy's men will wish him the best of luck.

Of the new men at the Hospital, C. W. Harrison showed us how to run the most number of events in one afternoon, while W. Hertzog excelled in the long jump, being only narrowly defeated by C. L. Steyn.

In the 1 mile scratch and 3 miles M. E. M. Jago ran very well, only failing by 1 second to equal the record in the former; A. S. Gough repeated this performance in the half-mile.

It was a great pity that E. W. Hutchinson did not encounter sterner opposition in the "Weight" and "Hammer" to rouse him to greater efforts.

G. K. Lacey repeated his last year's performance in winning the 100 yards handicap.

The "Donkey Derby" again was the cause of much merriment and interest among the spectators.

We would tender our very sincere thanks to Mrs. Slesinger, who very kindly filled the gap caused by the indisposition of Mrs. Eason, and presented the prizes at the conclusion of the Sports meeting.

The following is a list of the results:—

Championship Events.

100 *Yards.*—1, C. L. Steyn; 2, G. K. Lacey; 3, C. W. Harrison. Time: 10 1-5 secs.

220 *Yards.*—1, C. L. Steyn; 2, C. W. Harrison; 3, G. K. Lacey. Time: 22 3-5 secs.

440 *Yards.*—1, C. L. Steyn; 2, C. W. Harrison; 3, ———. Time: 55 4-5 secs.

880 *Yards.*—1, A. S. Gough; 2, G. W. Rake; 3, M. E. Jago. Time: 2 mins. 6 1-5 secs.

1760 *Yards.*—1, M. E. Jago; 2, G. W. Rake; 3, W. D. Jones. Time: 4 mins. 47 4-5 secs.

3 *Miles Scratch.*—1, M. E. Jago; 2, G. W. Rake; —3, W. D. Jones. Time: 16 mins. 38 secs.

High Jump.—1, W. Leslie; 2, W. Hertzog; 3, H. van den Broucque. 5 ft. 4½ in.

Long Jump.—1, C. L. Steyn; 2, W. Hertzog; 3, W. Leslie. 21 ft. 6 in.

Hammer.—1, E. W. Hutchinson. 78 ft.

Weight.—1, E. W. Hutchinson; 2, W. J. E. Radford. 34 ft. 9 in.

120 *Yards Hurdles.*—1, C. W. Harrison; 2, W. Leslie. Time: 17 4-5 secs.

Clement Lucas Cup (and Medal).—

C. L. Steyn, 20 points.
C. W. Harrison, 12 points.
M. E. Jago, 11 points.
E. W. Hutchinson, 10 points.
W. Leslie, 9 points.
A. S. Gough, 5 points.
G. K. Lacey, 4 points.

Handicap Events.

100 *Yards.*—1, G. K. Lacey; 2, R. S. Thomas; 3, C. W. Harrison. Time: 10 2-5 secs.

220 *Yards.*—1, D. B. Smallshaw; 2, C. W. Harrison; 3, G. K. Lacey. Time: 23 1-5 secs.

440 *Yards.*—1, C. W. Harrison; 2, A. S. Gough; 3, D. B. Smallshaw. Time: 53 2-5 secs.

880 *Yards.*—1, A. S. Gough; 2, G. W. Rake; 3, E. J. Andreka. Time: 2 mins. 5 3-5 secs.

1760 *Yards.*—1, M. E. Jago; 2, G. W. Rake; 3, W. D. Jones. Time:

3 *Miles.*—1, H. A. Gillett; 2, W. D. Jones; 3, G. W. Rake. Time: 15 mins. 44 secs.

Tug-of-War.—Wards.

120 *Hurdles.*—1, C. W. Harrison; 2, G. Fellowes-Smith; 3, H. van den Broucque. Time: 18 3-5 secs.

Relay Race.—Medicals—A. S. Gough, D. B. Smallshaw, R. S. Thomas, and W. Hertzog.

Band Race.—P. C. Sturdee, P. C. Chessum.

Staff Race.—1, Herbert; 2, Grimwood.

Guy's Hospital Swimming Club.

HAVING started the season with the loss of three members of last year's Water Polo Team, namely, C. A. Wakeford, F. Bekker, and H. Richards, it was very gratifying to find several enthusiastic Freshmen to fill their places, in both water polo and swimming; and the prospects for the present season are distinctly hopeful. The combination of the team is improving rapidly, and J. Simons is a worthy successor to Wakeford, the former captain. Owing to approaching exams. and "take-in," it has been difficult to secure a full team for several evening matches, and consequently we have sometimes been overrun by more experienced opponents. The team displayed good combination against Cambridge, losing by a single goal. The first round of the Hospitals' Cup will be held on June 20th at Pitfield Street, when we meet Bart.'s, our most formidable opponents. The President has once more secured the Bath Club for the United Hospitals' Gala on July 2nd; early application for tickets is advised, as the number allotted to each Hospital is very limited.

Results—

v. R.M.A.—Water Polo was won by 6 goals (Jones 2, Simons 1, Theis 3) to one. First and second places were secured in all the swimming events.—30 yards, 1, C. de Gruchy; 2, W. F. C. Tucker. 60 yards, 1, J. Jones; 2, A. R. Marsh. 240 yards, 1, S. E. Theis; 2, C. A. Malone. The Team Race was won by four yards.

v. Old Blues.—With a weakened team, a somewhat surprising win was obtained by six goals (Marsh 1, Jones 1, Theis 4) to two.

v. Otter"A".—Again playing with a depleted team, we lost to our experienced opponents by six goals to one (Crow).

v. East London College.—A run-away victory by 17 goals to nil; all the team scored excepting the goal-keeper.

v. Cambridge University.—Apart from somewhat erratic shooting by the forwards, the form displayed was very satisfactory. Stephenson was good in goal J. Simons scored two ingenious goals. The Hospital lost by four goals to three (Simons 2, Brown 1).

We failed to win any of the swimming events, losing the team race by five feet, and gaining second and third places in the quarter-mile, C. A. Malone swimming well.

v. Goldsmith's College.—An easy win by six goals to nil (Brown 3, Simons 2, Theis 1).

v. Woodside.—A very fast game, resulting in a draw of three goals each (—— 1, Simons 1, Theis 1).

Pass List, Hospital Information, etc.

Pass List.

University of London.

Third (M.B., B.S.) Examination.

May, 1924.

*A. T. Rogers.

*Distinguished in Surgery.

J. A. Currie.
L. Forman.
G. F. Gibberd.
R. E. Lane.
J. J. Lewinstein.
G. O. Mitchell.
J. W. Poole.
S. H. Robinson.

Group I.

A. T. W. Powell.
H. J. W. Westlake, B.Sc
D. H. Berry.
R. D. Gross.
C. Ive.
R. L. Portway.
E. C. Seward.
G. M. Stoker.
H. C. C. Taylor.

Society of Apothecaries of London.

May, 1924.

Surgery.

R. Schofield.

L.D.S.

First Professional Examination.

May, 1924.

Part I.

Mechanical Dentistry.

G. K. Lacey.
G. Fellowes-Smith.
M. Gerson.
D. Gure.
G. J. Hollis.
R. F. Keet.
W. H. Naylor.
G. W. Oliphant.
A. G. Taylor.
J. D. J. Visser.
J. White.
M. Wolman.

Part II.

Dental Metallurgy.

F. H. Channon.
G. K. Lacey.
J. Chamberlain.
D. K. Evans.
G. G. Grainger.
C. Hofman.
H. M. Norman.
V. C. Penberthy.
J. J. Sanders.
E. N. Screech.
C. N. Talmadge.
F. F. Wilkinson.

Part III. (a)

Anatomy and Physiology.

J. D. J. Visser.
M. Wolman.
J. Chamberlain.
C. Hofman.
V. C. Penberthy.
L. Barclay.
G. Evans.
R. D. G. Gain.
C. B. Boyd.
E. Boyd.
L. J. Brown.
I. E. Buxton.
L. Catchpole.
S. I. Cohen.
E. B. Corry.
E. F. S. Dodd.
H. E. Edney.
M. Farwell.
P. Gerrard.
A. E. Grace.
H. Hall.
E. R. Irish.
J. W. Kingston.
R. C. Lillycrap.
E. A. Moss.
H. Myers.
R. M. Phillips.
R. E. Rix.
C. Rumball.
F. W. Sander.
G. J. C. Sem.
J. Stazunsky.
H. E. C. Terry.
C. M. White.
N. C. Yendell.

Part III. (b).

Dental Anatomy and Physiology.

L. Barclay.
I. A. Barlow.
A. T. Brimmer.
S. Caspar.
T. S. Davidson.
H. Falk.
G. C. Ferguson.
W. C. G. Ford.
G. M. Glennie.
E. C. Grant.
N. Harris.
H. M. Holloway.
S. R. Howcroft.
W. R. Jenkins.
H. C. Lawrence.
W. H. C. Lean.
F. Lipschitz.
F. D. Manners.
B. S. Mead.
E. B. Rees.
H. H. Revill.
G. F. Swales.
A. E. Treweek.
C. M. Veysey.
de W. Vorster.
L. Walters.
J. F. Wege.

Pupils' Physical Society, 1923-24.

THE Treasurer's Prize has been awarded to Mr. N. Burgess for his Essay, "Some Observations on Acidosis."

The Physical Society have awarded a special prize to Mr. R. Brooke for his Essay on "The Sacro-Iliac Joint," which was proxime accessit for the Treasurer's Prize.

The Prizes of the Society for the best Paper read during the Session, for the best Pathological Specimen shown, and for the member who most distinguished himself in the discussions have been awarded respectively to Mr. E. Wornum, Mr. S. V. Strong, and Mr. Gwyn Williams.

The subject for the Treasurer's Prize Essay for next Session, 1924-25, will be an Essay dealing with any original work (clinical or laboratory or more general) done during the writer's time at Guy's Hospital. Essays should be sent to the Secretaries before February 28th, 1925.

The Secretaries will be glad to hear before September 7th of any members who are willing to read papers to the Society during the next Winter Session.

W. H. OGILVIE,
J. M. H. CAMPELL,
Hon. Secs.

Marriage.

BLAKE—WRIGHT.—On the 22nd May, at Christ Church, Westminster, by the Rev. Canon Ashinall, M.A., Eliot Watson Blake, M.R.C.S., L.R.C.P., son of the late Alderman Alfred S. Blake, J.P., and Mrs. Blake, of Gosport, Hants, to Hilda Margery Wright, the youngest daughter of the late Rev. Allan Wright, M.A., and the late Mrs. Wright, of Bedford.

Death.

HOWE.—On May 22nd, 1924, at 94, Stephenson Terrace, Preston, at the age of 67.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *June 21st, 1924.* *Number 938*

PASSIM

WE have of late been much exercised in mind as to the morality of dissembling. Beyond all things we would like to know people, not personally or on a friendly footing of familiarity, but from the point of view of a collector and, as a jeweller appraises his jewels, so would we be able to tell at a glance the pure gem from the "fake." This is a very old craving and does not date from the evening when we attended a play of that name and, from our complimentary seat tried to look as though we had paid to go in. It dates from the day that we discovered that everyone was alike. From the point of view of appearance this statement is untrue, for no two persons exactly resemble one another and a mother has been known to recognise her favourite twin by a post-auricular freckle, but from the point of view of dissembling, there are few living, who are not like everyone else. We are one of the few and so, when, on June 5th, a railway gentleman stopped playing his barrel-organ in the College quadrangle and asked us to spare the hospital a shilling, we replied quite frankly that we were out of funds and had not in fact seen a shilling since we left Epsom Downs the previous evening. The good fellow, noticing that we wore a collar and tie, could not bring himself to believe this and remarked, with a wink, that he knew all about that and had often "been acid" himself. This curious reference to his chemical reactions passed us by, unheeded, and we followed its example; nor would we have mentioned so trivial an incident had it not been so illustrative of our contention. To speak the unashamed truth is an invitation to be disbelieved, so firmly do the civilised believe in appearances. It is this belief that kept us from being a cowboy at Wembley last week. The invitations, so lavishly displayed in the Park, to "come and see Wembley for nothing," were sufficiently alluring, especially since the disastrous trip to the Derby in the Residents' bus, but, having no claims to the title of cowboy—unless cold beef and salad for the midday meal constitutes such a claim—we feared the consequences of hiding our real self beneath a sombrero and a pair of woolly trousers. We might easily have met a cow and should have been entirely unable to cope with it, if not actually cowed.

Fortunately for the Hospital there are plenty who do not consider these fundamental principles and a wagon-load of these practical men swept down on the great exhibition every day of last week, collecting money for the support of Guy's. They worked untiringly among the revellers in the carnival and increased the Hospital income by some £300.

This is not all the work the busy Hospital collectors have done. June 5th, mentioned above in connection with the barrel-organist, was the day allotted to Guy's for the pole-taxing of all passengers using the London Bridge Stations. The scheme of allotting one day to each large hospital for collecting at its nearest London railway terminus fired the imagination of the students, who set out to beat the previous best collection of £147, made by the Charing Cross Hospital. From four o'clock in the morning till nine at night they rattled their boxes, played organs and encouraged the poor to support the sick—with the surprising result that by night-fall they had collected £467 16s. 6d.

This large sum was collected chiefly from hard-working persons who, if asked for alms by a private beggar or even by a Church dignitary, would more than probably reply, with an implicit belief in their little fiction, that they had no money, or even, for the English

language is long suffering, that they were "broke." It is an amazing thing to us that these good, impecunious people find themselves with just a little money for charity whenever it is solicited with a sudden, boisterous insistence by a band of irrepressible collectors, fired by the zeal of competition. They disembark at London Bridge practically penniless and forthwith hand over four hundred and sixty seven pounds. It is always the same. The public steel their hearts lest the insistent steal their money, but whenever charity, having suffered long, breaks out into a fever of begging, hearts and money melt together. These are the times when human nature overcomes the civilised trait of dissembling and we would be the last to disparage them; but we do lament the trait itself that has made plain truth as incredible as the death ray. Why should a mechanical musician doubt us because for once he is told the truth. It is to us the most distressing of all civilised characteristics that so many educated people say one thing and mean another, while most look one thing and actually are another. We have striven hard to gain a knowledge of many characters only to find in each case that we have been studying the adopted disguise. Appearances go for nothing.

Mr. Punch was once interested in this question and decided, how rightly you may judge, that the true man appeared under the influence of the primitive emotions. He argued that faced with birth, death or love, a man's speech would be guided by his innermost soul and his words would express himself. And so, with the most praiseworthy intentions, he followed a pair of vernal lovers. Closely linked in each other's arms, they sauntered beneath the deepening foliage, now in the glory of the setting sun and now obscure in the forest shade; and as they walked, they whispered to each other thoughts that were sacred. Their presence sanctified the evening twilight; the strident chatter of a jay would have been profane. Creeping up with breath half-held, Mr. Punch asked only to be allowed one deep emotional thought to take with him from that sanctuary and, hushed and vibrating with restrained emotion, the lady's words floated down to him on the scented air—"Oh yes, Charlie's a very *good* judge of beer, Charlie is!!"

It is an experiment, which would be amusing were it not so staggering, to tell the undisguised truth and notice the effect. As often as not it will be received as the witticism of an incorrigible jester, who will in consequence add to himself great social prestige. At another time it will be frankly disbelieved and the teller will be considered a sad dog indeed.

Dissembling is the world's greatest pastime and civilisation's preponderating habit—but we still feel hurt by the unbelief of that organ-grinder.

▭

It may be that many members of the Clubs' Union have noticed a large shiney thing in the dining-room fireplace. It is the Challenge Shield for the victors of the Inter-Hospital Athletic Sports and was brought back to Guy's on Wednesday of last week by a band of intrepid athletes, who braved the bitterness of an English summer afternoon and carried all before them. The heartiest congratulations to the members of the team and the hard-working Honorary Secretary of the Athletic Club, G. K. Lacey.

▭

We would like to take this opportunity of thanking the Directors of the Southern Railway and the Station Officials of London Bridge Station for their kindness in permitting the most successful collection in aid of the Funds of the Hospital on June 5th. The liaison between the Railway and the Hospital on that day was excellent and everything possible was done to enable the students to make their record collection.

▭

It is with the greatest grief that we record the death of a Guy's Nurse. Marjorie Nicholson entered the Hospital in September, 1922, and worked chiefly in Job, Esther and Samaritan Wards. In the last named she was a special nurse to a case of typhoid, which she contracted, dying in Esther on June 17th. It is seldom that a member of either the Nursing or Medical Staff dies as a direct result of caring for the patients and the rarity of such a tragedy makes it's occurrence more shocking. To the relatives of Nurse Nicholson we offer our heart-felt sympathy in their loss.

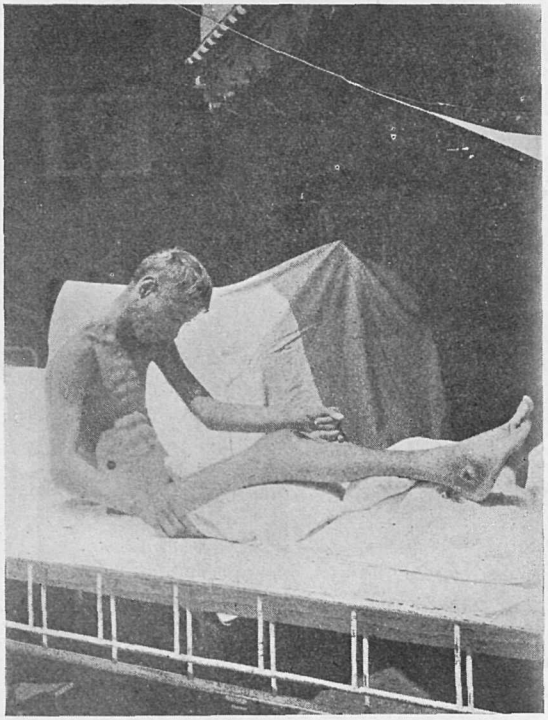
▭

The United Hospitals' Swimming Gala will be held at the Bath Club, Dover St., on July 2nd, at 8 p.m. Those who wish to have Tickets should apply immediately to the Hon. Sec., S. E. Theis, as the number available is limited.

Heliotherapy.

A Lecture delivered at Guy's Hospital on May 22nd, 1924, by Dr. A. ROLLIER, of Leysin.
(*Concluded*).

During the whole period the state of the invalid, his pulse, his temperature, and his contingent reactions are carefully watched; and at the least sign of intolerance the periods of insolation are shortened, brought back to the starting point, or stopped altogether. In some cases of peritonitis, the sun must be dosed almost, as it were, *in drops*, to prevent excessive reactions.

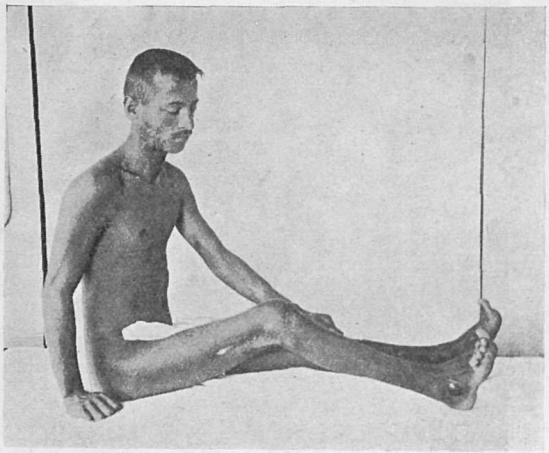


1.—A case of multiple tuberculosis; 45 foci, most of them open, with mixed infection.

When the skin is well pigmented over the whole surface of the body (the length of time required varies with each individual) untoward happenings are less likely to occur, and the patient can tolerate several hours of sunlight without inconvenience. Three or four hours a day in winter, and two or three in summer, are a normal amount of dosage. It is not customary to exceed this, unless there be positive reasons for doing so, as for example with young people whose supple organism adapts itself quickly and whose skin pigments easily. It stands to reason that for insolation to have its maximum effect it must always be used direct without the interposition of a screen of any kind and must be practised on the naked body. If we insist on the necessity of applying the sunbath by a succession of short periods, it is because short and repeated exposures, especially in the beginning of the cure, are far less trying to the invalid, and do not create the risk of any occurrence of solar erythema with all its tiresome consequences: dermatitis, pruritus, insomnia, etc.

Heliotherapy is not only the best local and general treatment for an organism that has been attacked by tuberculosis; it is also a valuable psycho-therapeutic remedy.

Patients arriving for treatment are generally of poor physique, often weak from long periods in the hospitals or from frequent operations,

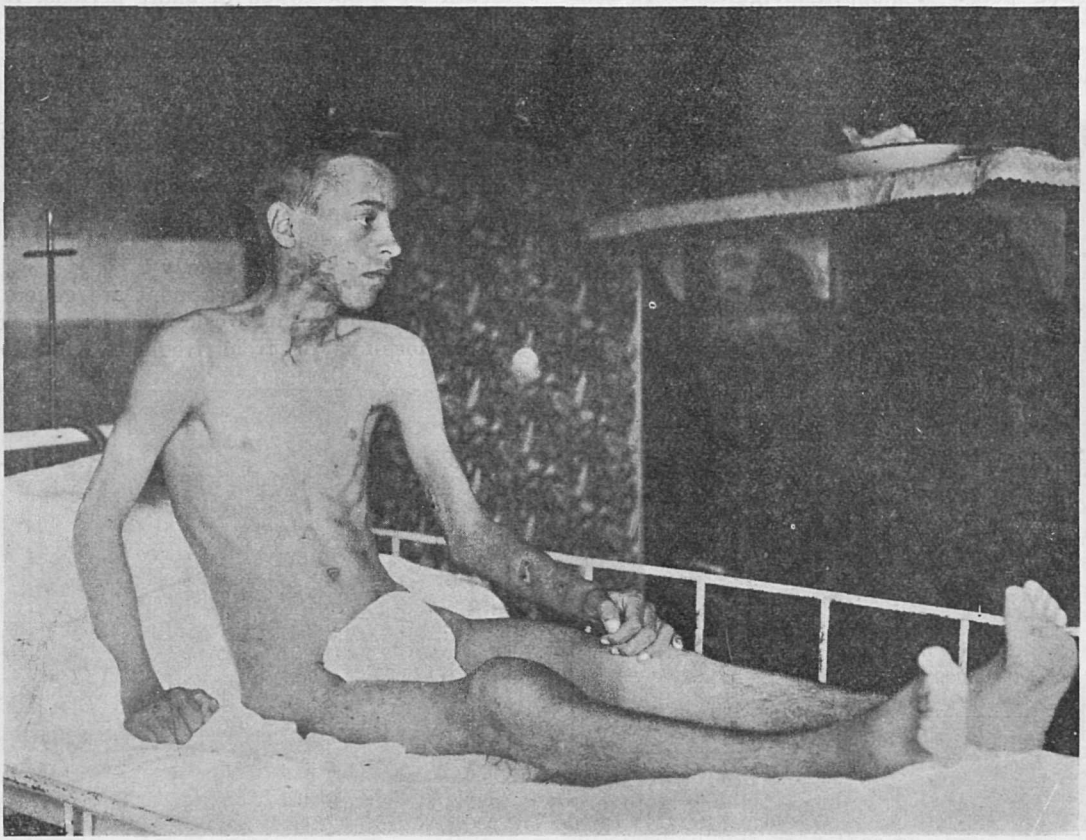


2.—The same after a year and a half, demonstrating partial return of articular function of left knee.

very anæmic, and discouraged by the lack of success attained under various treatments they have already had. They have lost hope of being cured, and what is still more serious, they have often lost the will to get well. In short, their psychological side is injured, as well as their physical well-being. In such cases we have to treat not only the body, but the mind as well, and it is here that heliotherapy exercises a remarkable influence. The life spent almost without intermission on the sun-balconies, in the open air and sunlight, rapidly

revives their good spirits. There are few who do not feel the charm of a lovely day out of doors in place of a horizon limited by the walls of a sick room, or who, in winter, can remain insensible to the bright light of the sun on the snow. It gives us all an intimate and profound sense of satisfaction which seems to come from a quicker, more active play of our faculties, a veritable expansion of our whole being. Whatever be the cause of this psychological living. Thus heliotherapy has not only a physiological value, but a social one as well.

As soon as the improvement in the patient's condition has advanced sufficiently, we associate with heliotherapy the "work-cure." This is not a new idea for English people, since the "work-cure" has been systematically applied in your country by Dr. Paterson at Frimley Sanatorium, for patients suffering from pulmonary tuberculosis, and is now applied in so



3.—The same case three months after the commencement of heliotherapy.

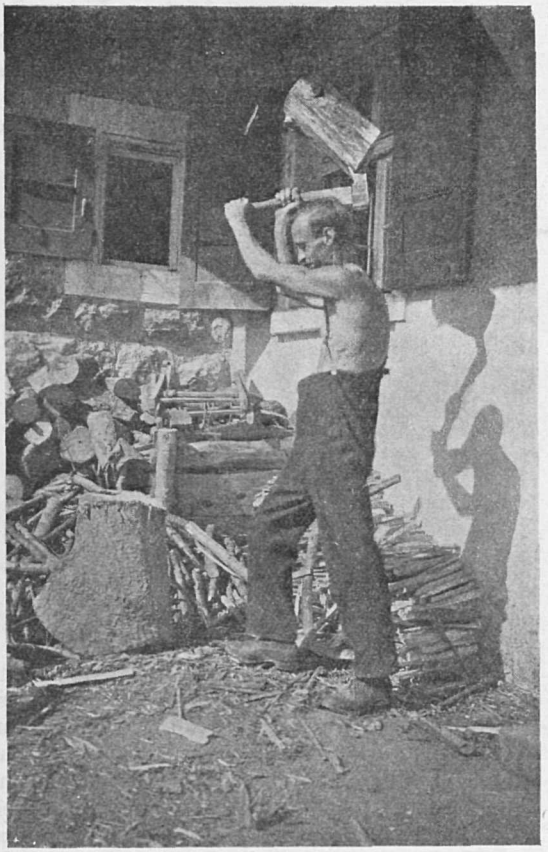
renascence of tuberculous patients when living in the open air, the fact is incontestable, we observe it daily. It is a powerful aid to the physician, it simplifies his therapeutic task, and works with him in the interest of the invalid.

Thus understood, heliotherapy, studied on broad lines seems to constitute the highest expression of orthopædic science and conservative surgery. No longer are mutilated or deformed beings sent back to Society, but individuals who are normal spiritually as well as physically, and capable of working for their

many institutions for cripples in your country, and realised in such an ideal way in Papworth, by Dr. Varrier-Jones, where a large settlement has been organised. I have also had the great pleasure to see in its details the "Heritage Craft Schools," in Chailey, where numerous patients and convalescents are looked after with so much care and attention by Mrs. Kimmins, and where, under the patronage of the well-known Surgeon, Sir Robert Jones, they are taught every handicraft which they are able to carrry out. I also know

that the work-cure is held in honour at Alton and Hayling Island, and am looking forward very much to visiting this remarkable Institution under the guidance of Sir Henry Gauvain. I will not forget to mention that work-cure is applied systematically in the numerous "Schools for Physically defective Children" in London.

The experiments we have made of the work-cure for our bed-ridden cases have been most encouraging. We feel convinced that it is a worthy adjunct of heliotherapy and we advocate it in all our Clinics for poorer classes.



4.—The same patient after ten years.

It may be practised whatever be the atmospheric conditions. Children have regular courses of instruction, adults occupy themselves with manual work. This does not in any way interfere even with the cure of immobilised cases. On the contrary, it presents a double advantage—combatting boredom—which Dr. Vigné calls the "disease of the soul," and which is a serious evil, although it finds no place in a pathological index, and moreover it provides for poorer patients an appreciable source of income. This renewal of activity, excellent in itself for the moral welfare of the patient, is reflected in his physique, and favours the progress of his cure. Thus patients find again the taste for work, and lose the idea, so often deeply rooted in them, of their uselessness, and they raise themselves in their own self-respect. This is their first step towards a return to normal life, the beginning of their re-adaptation.

91a—91b. Toy making in our military Clinic.

92—93. Basket making in a Clinic for men.

94. A lesson on a balcony for surgical cases.

Factories constructed very simply, but hygienically, and provided with spacious balconies easily opened to the air and sun. Convalescents, whose former occupation has not fitted them with farm work, that is to say, mechanics, chauffeurs, watch-makers, office and factory workers and the like, could there carry out all their professional occupations, while enjoying the benefits of heliotherapeutic treatment. Amongst other things, they could make small mechanical objects, watch and clock parts, and spare parts for automobiles, basket work, net work, toys, leather work, etc. By this means they could consolidate their cure, and avoid the danger of a relapse, to which a too early return to town life, or to more or less unhealthy localities would expose them. These ideas are not utopian; all that is needed is an organising force, and an intelligent initiative, coupled with the recognition of the importance of the work, and the determination to see it through to a successful conclusion.

It has often been said that the cures effected by heliotherapy are not lasting. We are trying to trace some of our former patients, and this is a difficult task, most of our former patients having been foreigners, who are not easy to trace after the war, which has brought so many changes in most countries. We had, however, the good fortune to receive news and photographs from some of our first cases—those that have been published previously—and we can show a number of them, some twelve, fourteen, and even more years after they left us, cured. This is all the more striking, judged as a result, because all these patients were belonging to the working classes, and had to live often under rather unsatisfactory conditions when they returned to their usual surroundings.

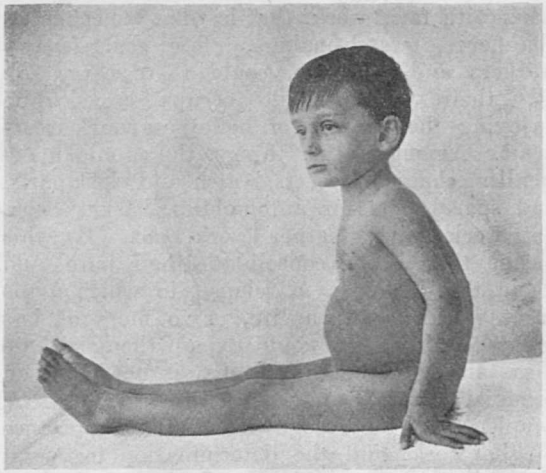
95. Extended tuberculosis of face and elbow. Seventeen sinuses. Numerous operations, one

of them being a partial resection of the elbow. Secondary infection—ankylosis of elbow. Very bad general condition. High temperature, albuminuria. The boy is completely cured after one year. Cicatrisation of all the sinuses and complete return of articular function. The same boy, ten years later, working in an Office in Germany, where he has kept well, in spite of the privations of the war.

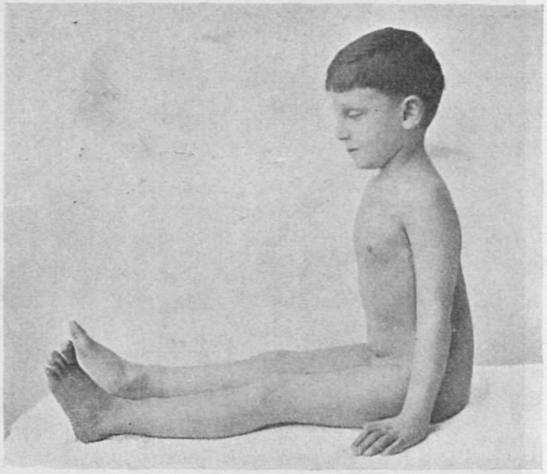
96. Tuberculosis of right elbow, with formation of many wounds and sinuses. Secondary infection following several surgical interventions—very painful swollen ankylosis, very bad general health, high temperature. The same girl ten months later, cured, cicatrisation of all the sinuses. The same again, twelve years later, a strong cook, having kept in perfect health all that time.

99. Very bad tuberculosis of the foot, leg and thigh; had been operated on five times before arrival. Thirteen sinuses, mixed infection, ankylosis of foot and knee. Very bad general condition, cachexia, albuminuria, high temperature. The same patient after one year and a half, absolutely cured, with complete restoration of the organism. The same, ten years later, one of our best nurses.

100. Very extended and painful tuberculosis of the left foot, mixed infection, large fetid wound, abundant suppuration, bad general condition. Spontaneous elimination of the necrosed scaphoid took place. This spontaneous elimination is extremely frequent, and we only practise surgical intervention when the sequestrum is enclosed in a cavity from which it cannot make its way out. In all other cases



5.—A case of tubercular peritonitis.



6.—The same after one year's treatment.

97. Tenosynovitis and tuberculous arthritis of wrist, recurring after operation. Secondary infection, sinuses, renal tuberculosis, nephrectomy: tuberculous peritonitis tuberculosis of right apex, small lupus on the right cheek. General condition poor, habitus phtisicus. The same patient one year later. The same patient thirteen years after she was cured, in excellent health and very active as a nurse.

98. Tuberculosis of the right knee, very painful arthritis with synovitis. Very great swelling. Fixation in bad attitude, subluxation of the tibia. The same, cured, two years after. The same, showing partial return of articular function. The same five years after being cured. The same ten years after being cured.

we leave it to the care and foresight of conservative Nature, who known much better than the Surgeon what must be expelled and what kept. This patient was cured after ten months heliotherapy. The wound completely cicatrised after the elimination of the sequestrum. Twelve years later, the patient has remained perfectly healthy, and she can engage in all kinds of sports.

101. Fig. 1.—A case of multiple tuberculosis: 45 foci, most of them open, with mixed infection. Adenitis and multiple costal osteitis. Tuberculosis of left elbow, left forearm, right knee, right and left feet. Cachexia, fever, albuminuria. Fig. 2.—The same, cured after one year and a half. Parial return of articular function. Fig. 4.—The same patient, twelve years after his cure, a strong servant.

102. A boy who had seventeen tubercular lesions, osteitis, periostitis, adenitis. One lesion of the temporal region had been curetted. Secondary infection, sinuses, affection of tracheo-bronchial glands and infiltration of right apex. Complete cure six months later. Fifteen and a half years after the cure; wheelwright and agricultural labourer. Did more than a year's military service without a day's illness.

103. A case of Pott's disease. Very pronounced kyphosi paraplegia, atrophy of muscles. The same patient, eighteen months later, cure of paraplegia, complete restoration of general health and of the muscles. After her cure this girl went back to Russia where after a few years she went through the whole miserable experience of the Revolution. She had to escape to Siberia with her parents, living during three months in an abandoned railway carriage. At last she reached Shanghai where she became overtired by working to earn her own and her family's living, and in the meantime studying hard, her heart's desire being to qualify as a doctor. Having saved a little money, she left Shanghai alone and went to London where she began her studies. But all her difficulties had told too much on her strength, and soon it was discovered that she was suffering from renal tuberculosis. She was operated on in London, then came back to Leysin where her nephrectomy wound cicatrised. Some time ago, she left for the United States to meet her parents who meanwhile had landed in that country.

104. The same on her skis, before she left for America.

105. A child, arrived with thirty-four lesions of tuberculosis, periostitis, adenitis, multiple sinuses, tuberculosis of both feet, right hand, peritonitis and advanced tuberculosis of left lung. General condition very poor, advanced cachexia, high temperature, and albuminuria. The same one year later, all tuberculous lesions cured. The same three years later, on his skis.

106, 107, 108, 109. The same in the School in the sun, busy hay-making and gardening. The same, ten years after cure. Cure completely maintained in spite of the boy having lived all these years of the war in a German orphanage, where he underwent considerable privation.

If heliotherapy can, as you have seen, cure the most severe manifestations of tuberculosis, it is easy to understand that it can, all the more so, prevent the outbreak of the disease.

According to present belief, it is admitted that the tuberculous infection is usually received during the period of childhood. By the time they have attained the age of puberty, almost all children—some say as many as 95 per cent.—have paid their tribute to tuberculosis. We know that the infection is spread via the lungs and intestines. In the first case, the lymphatic system, and particularly the tracheo-bronchial glands, constitute the first line of defence. If the boy is in good condition for resistance, the early infection will stop at this primary focus, and will even produce a kind of immunity in the child against future attacks.

Since it is during this period of childhood that the tubercle bacillus is usually introduced, it is then specially that we must seek to render it powerless, less the attack should go further. For this purpose it is sufficient to strengthen the child's resistance to the maximum. There is no more potent method of obtaining this result than by placing the patient in the air and sun.

It was with this object in view that in 1903 we opened the first heliotherapic "Preventorium," near Leysin, at a height just over 300 feet. The children come to us, for the most part, from Schools. Some are anæmic, stunted physically and mentally by the overwork which the usual syllabus inevitably produces, others are convalescent from the infantile catarrhal infections, with subsequent adenoidal and tonsular hypertrophy, and the enlargement of tracheo-bronchial glands, so readily confirmed by X-ray examination. Given the benefit of strictly individualised heliotherapeutic treatment (consisting of complete rest at first, followed by progressive gymnastic and respiratory exercises, and then various mountain sports) these delicate ailing children, with flat pigeon chests and wasted limbs, show a striking transformation after a few months. Out of lean and fragile children, the new mode of life makes robust mountaineers, with strong muscles and broad chests. They can resist fatigue, are very little sensitive to changes of temperature, and in short they are in the full tide of health. Everyone shows an increase in hæmoglobin, in weight, in lung capacity and in chest expansion. Their lungs strengthen in the same way, and radiography shows progressive sclerosis of the tracheo-bronchial glands.

110. A boy of our school in the sun. On arrival.

111. The same boy, after six months' stay in our "School in the Sun."

112. The School in the Sun.

113. A class in front of the School.

114. Another aspect of the School in summer.

115. The School in the Sun in winter.

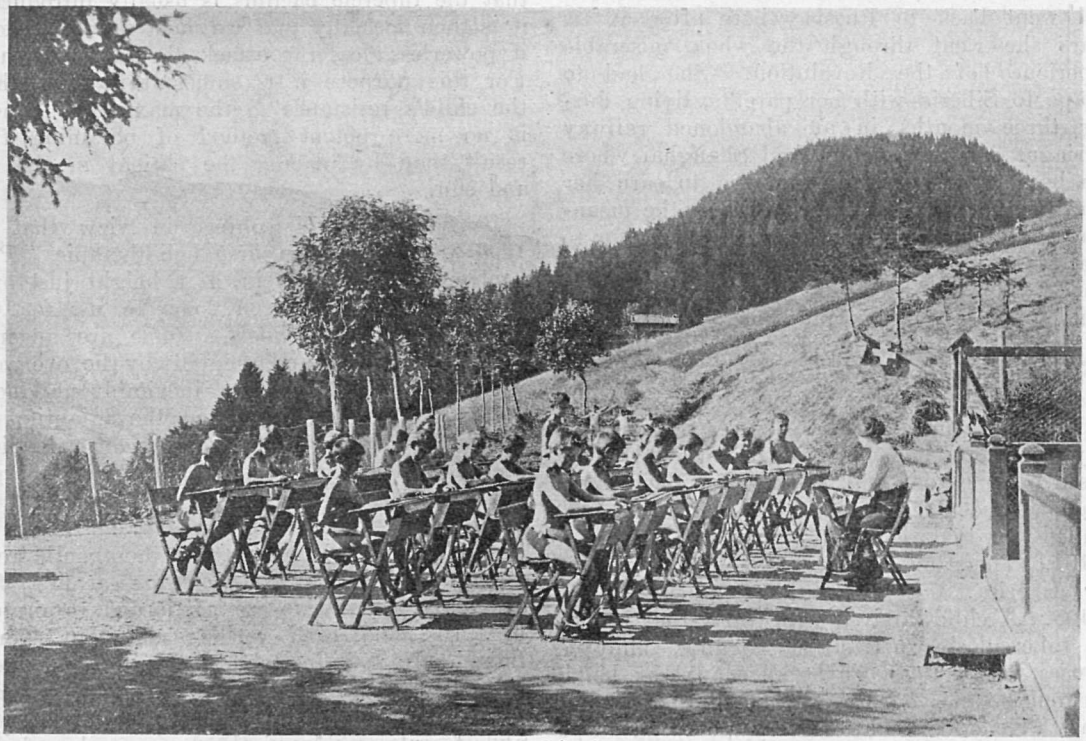
Being convinced that the long hours of immobilisation in a school are inimical to the proper physical development of the child, and are the source of distortions of the spinal column and of the thorax, predisposing the child to tuberculosis, we have mobile classes in our school in the sun, in which practical exercises, done as far as possible without any clothing, are given alternately with the school classes.

126. Skating.

127. Ski-ing.

Replaced in their natural elements of air and sun, the organism of the child most predisposed to illness, transforms and expands itself till it becomes "the human flower" in all its beauty.

At the same time his body is developing, his intelligence is quickening, and his spirit rising. Contact with the marvels of Nature aids the work of education in striking fashion, and thus the ideal of "mens sana in corpore sano" is realised without difficulty.



6.—The School in Summer.

116. An ambulatory class sets off, the special appliance for desk and chair carried by the children on their backs.

117. Another aspect of the mobile class.

118. Having found a suitable place, the teacher and children settle down to work.

119. A lesson of botany amidst the fields.

120. Another picturesque spot where to have the lesson.

121. The ambulatory class in winter.

122. On their way to a sheltered spot.

123. The School in the Sun in winter.

124, 125. Winter sports—ski-ing and luging.

We can but hope that these "Preventoria" may become indispensable annexes to the school everywhere.

A rational use of the sun bath, in combination with gymnastic exercises, is already becoming common. We have had the satisfaction of seeing this principle adopted and carried out in a great number of towns in Switzerland and in many other countries. It has made the School, so long a place of physical harm, a house of moral and physical education. This is the ideal way of preventing the development and spread of tuberculosis, and may be instituted

in every country, which has favourable climate during its best season.

It seems to me that England, where already so much has been done for the development of the physique, and where this question of heliotherapy is presently of great actuality, is the country elected for the realisation of this programme of prevention, and I already picture in a dream your beautiful gardens and parks, the glory of your country, transformed in gardens blossoming with human flowers.

your very well known hygienist, Dr. Saleeby, who is fighting by the word and the pen for more light, more sun and air, for better housing, thus combatting the diseases of darkness which are a shame for our modern times.

If I have insisted on these important points it is mainly because I wish to ask you, the surgeons and the physicians of the future, to contribute to making these ideas better known and better put into practice.

The task of the doctor, especially in the

7.—The School in the sun in Winter.

But the preventive rôle of the sun must not be limited to the School, and should be continued later on, by its application in the whole city. The community is responsible for the veritable waste of human lives, especially in the poorer classes, caused by unhealthy housing, and the old saying, "the sun shines for everybody," should by now become a reality.

England, we know, is progressing daily in this respect, and I believe that a large part of the improvement that has been achieved of late is due to the indefatigable campaign of

city, nowadays becomes ever more important. He is no more there, as he was in old days, simply to attend to his patients' ailments, but he is called to organise the preventive fight against all the evils which menace the health of the citizens, and of these evils, tuberculosis is perhaps the most terrrible one. We have seen that heliotherapy can be of eminent service to us in this respect, and if you give us your help towards making this form of treatment better known and more usually practised, you will be, at the same time, good Doctors, and good Patriots.

Prevention and Treatment of Septic Teeth in Children.

A Lecture delivered at Guy's Hospital on Friday, May 3rd, 1924,
by E. B. DOWSETT, M.R.C.S., L.D.S.

GENTLEMEN,—I propose to talk, this morning, about prevention and treatment of septic teeth in children. Of course, as you know, we have a dental surgeon here, Mr. Bull, for the treatment of children. Perhaps I ought to apologise for making any attempt to myself talk about dental disease in children, but it struck me that it was perhaps interesting to hear the subject from somebody else sometimes, not that you will hear from me anything particularly different or antagonistic. At the same time, it is always interesting to hear two people talk on the same subject, and if views differ, you have the opportunity of making up your own minds from the material supplied. Certainly you cannot hear too much on an important subject.

To begin with, you must know by this time that diseases of the teeth in children are extraordinarily prevalent, much more so than we would wish. Thank goodness, it is getting better in this country, owing to school clinics and other organised means of treatment, but it is still very bad. I suppose that, roughly, about 80 per cent., or perhaps even more, of the present day children are suffering from dental disease in some form, in consequence of which the health of not only the children but of the nation suffers very considerably indeed. Therefore it is of the utmost importance, from the national point of view, to put it broadly, that the teeth of the children should be treated properly.

I propose to first say a little about the prevention of disease of teeth in children, and then speak later on the treatment of the particular form that we have selected for consideration to-day, namely, septic teeth in children, because, after all, of course, prevention is a method of treatment.

Prevention cannot be started too early, in fact one must start before the child is born, that is to say, by ensuring that the expectant mother is properly fed, and that her nutrition is kept up to its proper standard. Unless that is done, the child may be a weakling, and if it is, it cannot properly assimilate its food, and then its teeth cannot be properly formed. Such a child starts, therefore, under bad conditions. However healthy the child may eventually be made by medical science after birth, if the teeth are badly formed they stand a bad chance in the mouth, however carefully they may be attended to afterwards.

And it is very important in the early days of the child's life that it should be breast-fed in every possible case. That is a point which can be insisted upon by dental surgeons, and not left entirely to the doctors. Doctors may sometimes be lax on that point, not appreciating that it has a very extraordinary effect on the teeth. I have observed, in my practice, two or three families, one in particular, in which that was very marked. It was a very numerous family, I think there were 10—that used not to be considered a very big family at one time—and of those children, four were artificially fed, for various reasons, after the first week or two. The other six were breast-fed. All the children in this family are patients of mine, and have been from the earliest possible date, and I still see them all from time to time. Those children show an extraordinary difference in their teeth. All those that were breast-fed have what one would ordinarily call perfect teeth; they come regularly for inspections, but there is seldom anything required to be done to them. On the other hand, those who were artificially fed have their teeth continually being filled, and that goes on until all the vulnerable spots in their teeth have been attended to. It is a very striking difference, and I have other families among my patients illustrating the same thing.

The next point to consider in the child's career is the question of diet after the stage of breast-feeding is over. It is of the utmost importance that the diet should be such that the teeth can be normally cleaned in the act of masticating that food. I want to lay very great stress upon that; that the best cleanser of the teeth is the act of mastication. If the teeth are normally placed in the jaws and the jaws are normally situated in respect to one another, and the diet is of the proper kind, there is never any necessity for the use of a

tooth-brush. But a tooth-brush becomes a paramount necessity in the vast majority because the diet eaten at the present day is not such as it ought to be, and it is very difficult to see how it is going to be universally altered. If it could, the teeth of the nation would undoubtedly improve very much. Roughly, the diet should be such that it cleans the teeth instead of making them dirty. The ordinary sticky, carbo-hydrate foods should not be taken. The last item in any meal should be some detergent or cleansing article. This has all been talked about at great length and summed up by Dr. Sim Wallace, in his various writings and books, some or all of which you may have read. The stock advice, which cannot always be carried out, is that a meal should be completed by the taking of some raw fruit, such as an apple, for cleansing. It is sufficient to say here that soft or sticky foods should not be taken last in any meal; the harder the food taken is, the better it will cleanse the teeth. You will see from this that children should not be continually fed on slops, biscuits, bread and butter, bread and jam, for those foods are detrimental to the teeth and gums.

That leads one to speak on the subject of oral hygiene generally. In consequence of the fact that children do not feed normally on a proper hygienic diet, it becomes necessary that artificial means should be taken to cleanse the child's teeth. It is for us, as dental surgeons, to teach the parents, and also the children themselves, when we have the opportunity, how to cleanse the teeth. I shall not, at the moment, go in detail into how to use the tooth-brush; I will deal with that in another lecture. But mothers and children should be definitely taught how to use the brush. I want also to stress another point in regard to that, namely, the rinsing of the mouth after the use of the tooth-brush. I consider that of more importance than anything else in oral hygiene. You can demonstrate this point for yourselves over and over again when you are ordinarily scaling and cleaning the teeth of patients. You will frequently find that on asking the patient to rinse the mouth after using the tooth-brush with pumice powder or other cleansing agent, a lot of debris has been left behind and around the teeth, particularly against the inner and outer sides of the lower incisors, which seems to be the most difficult site to cleanse by rinsing. And that occurs because the patient does not put the water used in the mouth around those teeth. What you can easily observe a large number do, is to put the tongue into such a situation in the mouth, by hollowing it in the middle and putting it upward at the sides, that it will cover over all the lower teeth, and frequently much of the upper teeth too. The water goes into the mouth, and it is pushed backwards and forwards along this channel between the concave curve of the tongue and the roof of the mouth, and so only the part between the tongue and the roof of the mouth is rinsed. It may clean the inner sides of the upper teeth, but it does not touch the lower teeth. That is the worst condition that may happen, but there may be any stage between that and a cleansing of all the teeth. You will usually find that the situation least cleaned is the lower incisors, both lingually and buccally. You must instruct parents and children to carry out that proper method; it can only be done by your careful observation and teaching, by telling the patient to blow out the lips separately, and also the cheeks separately, then the water is forced between the teeth and on both sides, and in that way the teeth will become clean.

I said just now that, provided the diet is correct, a tooth-brush is unnecessary. I recall a case, which I have often quoted before, of a girl who came to the consultation room on my particular morning merely because she had a slight soreness of the gum, evidently due to a scratch made by a piece of food. Otherwise she had the most perfect set of teeth I have ever seen; they were absolutely regular in every way, and they were quite clean. On my asking her how often she cleaned her teeth, she said she had never cleaned them in her life. She was about 21 years of age. What had happened in her case was, that she had not been in the habit of eating sticky carbo-hydrate foods. It was a little difficult to get her exact history; she was the ordinary hospital type of patient, and she was very fond of fruit, but she did not necessarily take it at the time I have mentioned, namely, at the end of a meal. She fed normally, and she did not take food between meals. But what contributed most to the good condition of her teeth was that she had perfect articulation, so that what she did eat moved all round the surfaces of the teeth and helped to cleanse them, and in her case the necessity of a tooth-brush did not arise.

Another point concerning prevention in these children is, the curing, or the prevention, of mouth-breathing, which, incidentally, also brings on adenoids and a narrow arch. The reason why mouth-breathing should be cured or prevented is that in all mouth-breathers, sooner or later—generally sooner—there is a degree of gingivitis or inflammation of the margins of the gums, especially the gums around the front teeth. That leads later to pyorrhœa, the mouth gets into a septic condition, and the teeth become tender, mastication is not carried on properly, and the patient begins to feel the effects of it, both from defective mastication and from the poisoning arising from the gum condition. Therefore it becomes most important that the mouth-breathing and adenoids should be treated, and that the child should have proper exercises and fresh air.

Now we come to the actual treatment of caries, as distinct from prevention. Here again the important point to remember is that caries in children must be treated early; if that is not done, the teeth become tender, the pulps may become involved and may die, and the mouth is then said to be in a septic condition, in consequence of which the patient cannot masticate. If the condition is confined to one side, the patient ceases mastication on that side, and then the mouth as a whole is not functional. That is a state of things which you have to avoid. The mouth must be made functional, it must be made to "gee" in every sense. What you have to think about also is, not only the local conditions in the mouth that I have just mentioned, which may occur if caries is not treated early, but the general conditions of the patient may be upset. The general history of what happens is this: As I said just now, the teeth become carious and tender to bite on and then the pulps may die, and abscesses form, also inflammation of the gum margins because in this condition the gums are not being used. The gums get covered with débris of food, and hence gingivitis and pyorrhœa set in. When this occurs, the patient becomes ill in two ways: first, by direct local infection from that condition, the infection showing itself particularly in the glands of the neck; it is very often the starting-point of tubercular trouble in the glands of the neck. The most frequent portal of entry for the tubercle bacillus into the glands of the neck, which is very prevalent in children, is via the teeth. But the bacillus, in all probability, will not settle in those glands unless they have previously been inflamed. Without my laying further stress upon it, you know the seriousness of tubercular infected glands in children, not only from the local condition present, but because of the risk of the bacilli settling and doing damage in other parts of the body. In addition, in consequence of the amount of poison which is being continually absorbed into the system from the mouth, the patient becomes ill from the general toxæmia set up from the septic teeth. It affects the patient in various ways, and there is no need for me to mention all of them. The commonest are sleeplessness, general lassitude, restlessness, irritability, and all forms of digestive troubles, any of which will lead to wasting and marasmus in the child. These children look pale and thin and ill-nourished, and it is a very common condition in hospital among patients whose teeth have not been looked after, and it is indeed a very serious state of affairs.

To continue on the actual treatment of caries of the teeth in an early stage, I shall not enter into that in detail, because I am coming shortly to the treatment of septic teeth. Briefly, however, I will say that the teeth must be filled at quite an early stage, and as much trouble must be taken over the filling of those teeth as is taken over the filling of permanent teeth consistent with the amount of interference that any particular child will put up with. That is an important proviso, for if you attempt to do too much for the child, to carry out every detail minutely, you may so frighten the patient, and possibly the parents too, that your advice for that patient will not be sought any more. Therefore your work must be tempered with a certain amount of common sense, and you must act according to the circumstances. If it is impossible to fill the teeth—as it occasionally is in certain children who are fractious or otherwise difficult to deal with—the next best method—and one which is adopted by some as a routine practice, is to use silver nitrate on the carious portions of the teeth, either applied as a strong solution, or direct, the latter being preferable. The silver nitrate is fused on to a burnisher, otherwise it would be difficult to manipulate it in the mouth, and you must not use it loose in the mouth, because it easily cauterises. Some advocate the treating of all fissures in

temporary molars with silver nitrate, whether they are carious or not, very carefully drying and isolating them, and swabbing them with a very strong solution of silver nitrate. And a very good procedure it probably is.

Another method, if teeth cannot be filled easily, is to excise the caries and leave the teeth at that. That is most easily done in the incisor region. It is not so easy in the molar region, and it is not so desirable there. But in the incisor region, where you have moderate sized cavities and if the patient will not tolerate a vast amount of treatment, the caries can be rapidly excised with chisels and excavators, and they can be left as V-shaped teeth if they are specially carious on either side, and not filled. That, however, is not desirable unless it is difficult otherwise to fill the teeth.

Now we come to the question of treating septic teeth in the child. By septic teeth I mean now, teeth whose pulps have become involved in the decay, not simply teeth that have gingivitis around them; I refer now only to teeth with septic pulps. I want to lay it down as a definite axiom that there is no method of treating septic pulps in temporary teeth, and therefore as there is no sound method of treating them, there is only one thing to be done, and that is, to extract them. That is my invariable practice, never to fill the root canal of a temporary tooth that has been septic; that tooth must be removed. The reason for that is, that the root of every septic molar has to become absorbed, and that absorption depends upon the integrity of the pulp. If the pulp is dead, that root does not become absorbed normally. That, in itself, will interfere with the advent of the permanent tooth coming up underneath it. Apart from that, a much more serious reason is, that because of the uncertainty as to the condition of the apex of the temporary molar, you are not able to know whether you are or are not going to render the apical area of that particular tooth free from infection. In the vast majority of cases the apical area of the temporary molar that has been septic remains septic after the filling; therefore the risk is far too great to allow that to go on. Hence there is only one sound method of treating temporary molars when the pulps have become involved, and that is, by extraction.

Another point is this: The first permanent molars, when the apices are not formed, come under the same line of argument; once the pulp has died in a permanent tooth, i.e., molar, before the apex has been formed, that apex will not form any further. A few cases have been recorded in which the apex is said to have closed after the pulp has died, but such cases are so rare that you can neglect them. In the ordinary course of events, if the pulp dies in a permanent molar before the apex is formed, that apex will not continue to be a closed cavity, you are not justified in filling that tooth, and it should be removed. Remember that the apex of the first permanent molar closes, approximately, at the age of 9 years. It often happens, especially in children at hospital, the mothers of whom have not had the opportunity of taking their children to have their teeth treated, or have not had the inclination to do it, that the teeth are seen to have become very rapidly carious, much more so than in private practice. It frequently happens that the children we see here have a large number of decayed teeth when first seen by us, and in many cases the pulps are involved. That, according to the line of treatment I have indicated, necessitates the removal of a large number of teeth in those children, even as early as the third and fourth years. At first thought that may seem to be a very drastic method of treatment, making these children practically edentulous, just leaving a few incisors. Nevertheless it is the rational and the proper method of treatment, according to my line of argument, and it is the line I always adopt myself. Before the war, I had a large series of cases here at the hospital of children treated in such a way. These children were inspected from time to time, and watched carefully as regards their general well-being or otherwise, for some months, in some instance for a year or two, after those teeth had been removed, that is to say, after the children had become practically edentulous. The result, in every case, was markedly beneficial to the general condition of the child. The children treated in this way—by wholesale extractions—thrived and benefitted to an enormous extent; yet when they were first seen they had a large number of septic teeth and were thin and ill-nourished and were suffering in health in various ways, as I have already indicated. As soon as the septic teeth were removed, the children began to put on weight, and their general improvement was progressive. That may seem rather extraordinary, because the first thing that you would imagine

would be that these children without any molars would not be able to masticate. But, as a matter of fact, they are. The diet may be chosen to suit their requirements afterwards for a time, but they are perfectly able to eat and thrive and become healthy little citizens again, which they were not for some time before the extractions. That is what always happens when you remove the septic conditions from their mouths, provided, of course, there is no other serious trouble, and I am only talking of cases in which it is definitely established that the condition of the child was due to the septic condition in the mouth. It is a mistaken idea, therefore, that extraction of the temporary molars in a child will interfere seriously with mastication. The modern diet of the child is such that in the ordinary way, in the case of those we deal with at hospital, mastication is not very necessary, for these children, in the usual course, do not eat meat twice a day, many of them, perhaps, have it only twice or once a week. Mostly they feed on bread and butter and bread and jam, and other soft foods of that description. It is nutritious, and is easily eaten without a large number of teeth; in fact it can be eaten without any teeth at all. And the puddings they eat are soft and can be made very nutritious. That is the reason these children thrive and improve and put on weight very rapidly, in spite of having no teeth.

There is another argument that has been brought up against removal of temporary molars at an early age and leaving the child edentulous, and that is the question of the growth and development of the jaws, and hence the possibility of interfering with the succeeding teeth. But one has found out that that is not so serious as, from theoretical considerations, you might think. It is ordinarily said that the jaw does not grow properly when the temporary teeth are taken out before their due time; but, as a matter of fact, it does, and there is no evidence to show that the jaw does not grow when the teeth are taken out. All the children I have watched discount that idea. You can see in many cases at the present day that the teeth come down in a perfectly normal manner, with one class of exceptions, and that class is where the temporary molars have been taken out so early that the 6-year old molars were not in position. In those cases the 6-year old molars have all come forward and have therefore created a certain amount of crowding in the pre-molar region. But that, in all these cases, is easily rectified by, at a later date, removing a premolar on each side, top and bottom. That completely obviates the whole of the trouble, and the teeth erupt normally in a perfectly good arch. If what I have mentioned is done at the proper time, that slight irregularity is completely rectified.

There is only one other point in regard to the possibility of trouble in removing temporary molars at an early date, and that is, possible injury to successors, possible injury to the pre-molars under the temporary molars. If the temporary molars are removed early, their roots may be fairly well formed, that is to say, if they are removed before the absorption of the roots has begun, and the permanent successor may be right up between those roots. Therefore, theoretically, there is a danger of the developing succeeding teeth being injured. But, again, practically, judging from one's own experience, there is very little risk of injury if the teeth are removed with a normal amount of skill.

Therefore, to sum the whole matter up, the troubles that may arise after early extractions of the temporary molars are so small as to carry little weight. The only one of any moment at all is the crowding of the premolar region, which can be easily obviated, and that trouble is so small that it is a very small price to pay for the health of the patient, bearing in mind that one definitely knows, from practical experience—and you can observe cases in the Hospital for yourselves—that these children do eat well, they fatten and thrive, and the permanent teeth come into practically perfect position, and therefore get good articulations and remain healthy.

Change of Address.

Dr. St. George B. Delisle Gray, 20, Norton Road, Hove, Sussex. Tel. Hove 6297.

C. Warner, East Anglian Sanatorium, Nayland, Colchester. Tel. 1 Nayland.

W. E. Tanner, M.S., F.R.C.S., 38, Queen Ann Street, Cavendish Square, W.1. Tel. Mayfair 7007.

Dr. Oswald Marriott, Hollywood, Haywards Heath, Sussex.

Publications Received.

St. George's Hospital Gazette, The Serpent, The Dental Record, The Antiseptic, The Nursing Times, The British Medical Journal, The British Journal of Dermatology and Syphilis, The New Cambridge, The Long Island Medical Journal, The Isis, The Broad Way, The University of Durham College of Medicine Gazette, The London Hospital Gazette.

Early Pericardotomy in the Treatment of Pericarditis Secondary to Osteomyelitis of Bone.

By R. BROOKE, M.R.C.S., L.R.C.P.

RIOLANUS in 1649 is believed to have been the first to advocate tapping of the pericardium in the treatment of pericardial effusions. The first rib resection with pericardotomy was performed much later, probably by Rosenstein of Leyden in 1881.

Pericardotomy for purulent pericarditis is, at the present time, a not infrequent procedure, and with the improvement of modern operative technique, is resorted to still more often. The mortality from the operation is of necessity very high; so much so that even to-day it is undertaken only as a life-saving measure. The number of recoveries are much greater when the pericarditis occurs during the course of pneumonia or rheumatic fever than when it follows osteomyelitis of bone. The reason for this is not far to seek, for the latter condition is one manifestation only of a general pyæmia, and mestastatic abscesses of the heart muscle itself are usually co-existent.

Thirty-six cases of pyopericarditis secondary to osteomyelitis of bone have been recorded in which drainage of the pericardium was performed. Recovery after operation took place in two instances only. A few of these cases are tabulated below:—

Name.	Length of History of Bone Disease.	Length of time after onset before heart lesion.	Date of Operation and Description of Findings.
1. Emma G., 14 yrs. G.H.R.	Osteo. My. Ileum, 7 days	12 days	19th day. Pus Staphy. aur. Death.
2. Cecil C., 9 yrs. G.H.R.	Osteo. My. Femur, 2 days	6 days	8th day. Pus. Staphy. aur. Death.
3. Female	Osteo. My. Tibia, a few weeks	Aspiration twice. Last 5 days before pericardotomy. Fluid sterile	3 days after aspiration. Pus++. No microscopical examination.
4. Female, æt. 6 (Brentano)	Osteo. My. Rib. Metatarsal. Ill six weeks	Pericardium Aspiration 8 days and 4 days after admission. Fluid sterile	Pericardotomy 10 days after admission. Pus ++ Death.
5. Child æt. 7	Osteo. My. Tibia. Length of history not stated	Signs of effusion 6th day. 8 days after this pericardium tapped. Fluid sterile	Tapped 10 days later. ++Pus. Pericardotomy. Death.
6. G. Harrington, æt. 11	Osteo. My. Femur, 1 week	8 days later pericardium tapped. Fluid sterile	18 days later tapped Pus ++ Pericardotomy Fluid. Staph. aur. Death.

The explanation of this high mortality probably lies in the delay in operative interference. For example, in twenty of the thirty-six cases pericardotomy was performed three to four, or even ten days after fluid in the pericardium had been definitely diagnosed clinically, both by signs and symptoms, and by aspiration.

A good illustration of this is to be seen in the case of G. H. (No. 6 in table). The child was admitted into hospital with an acute osteomyelitis of the left femur of seven days' duration. Immediate operation was performed and the whole of the shaft of the bone opened up and drained. Eight days after operation the boy showed no sign of improvement and physical examination of the chest revealed the presence of a pericardial effusion; which was tapped. Turbid serum was drawn off, but at the end of forty-eight hours no micro-organisms were grown from it. Ten days later the pericardium was again tapped. This time pus was drawn off which, on microscopical examination, revealed the presence of large numbers of staphylococcus aureus. Pericardotomy followed with death twenty-four hours later. At the post-mortem examination a pericardium full of pus was found with a small abscess in the myocardium which had ruptured externally into the pericardial sac. No other pyæmic foci were present.

The other examples are all similar in that pericardotomy was delayed until needling of the pericardium revealed a purulent change in the pericardial fluid.

Turning now to the two records where recovery ensued. The first occurred in a lad aged eleven. Henry P., who was admitted into hospital with a two days' history of malaise and fever with pain and tenderness over the right tibia. Immediate operation was performed and the shaft of the tibia opened and drained. Eight days later the patient's condition was much the same as on admission, temperature 101°, pulse 110—120. Physical examination of the chest revealed for the first time the presence of a pericardial rub situated at the base of the heart at the third left costo sternal junction. The following day the rub had altered in both position and character. It was now heard nearer the apex of the heart opposite the costo sternal junction of the

fourth left rib and only faintly. On the third day it had disappeared altogether, but definite signs of fluid in the pericardium were now present. On the twelfth day after admission the boy's condition was still serious and pericardial dulness now extended out for a distance of half an inch to the right of the sternum and to the left as far as the anterior axillary fold. The pericardium was then tapped and slightly turbid fluid drawn off. This was thought to contain pus so that immediate pericardotomy followed. Subsequent bacteriological examination of the fluid demonstrated the surprising fact that it was sterile. Twelve hours afterwards the wound was discharging pus containing a rich growth of staphylococcus aureus. Subsequently both pulse and temperature subsided rapidly and uneventful recovery took place. At the end of three months the boy was discharged to a convalescent home with the wound healed, and capable of doing a fair amount of active exercise. No signs of adherent pericardium were present.

The second recovery occurred in a boy, George H., æt. twelve, who was admitted to Guy's Hospital with twenty-four hours' history of pain in the left calf. On examination marked tenderness was found on deep pressure over the lower end of the left fibula, with swelling, heat and œdema of the leg. Osteomyelitis of the left fibula was diagnosed and immediate operation performed. Ten days afterwards he developed a pyæmic abscess in the shaft of the left tibia which was drained, but did badly; so much so that a Gritte-Stokes amputation was necessary on the fourteenth day. On the twenty-first day a metastatic abscess appeared in the upper end of the shaft of the left humerus. Then seven days later a distinct rub was heard for the first time over the base of the heart, which disappeared six hours later. Meanwhile the limits of cardiac dullness were extending and signs of pericardial fluid were now well marked. Twelve hours later the pericardium was needled and slightly turbid fluid evacuated, which on subsequent microscopical examination proved to be sterile. At the time the fluid was thought to be infected and pericardotomy was performed a rubber drainage tube being left in situ. Four hours after operation the fluid draining from the tube was distinctly purulent in nature and when examined microscopically staphylococcus aureus were seen in large numbers. Recovery in this boy was uneventful and he is now walking about the ward. There are no obvious signs or symptoms of adherent pericarditis.

In both these cases it will be noticed that the primary disease of bone was operated on at a comparatively early stage in the disease, and furthermore the pericardium was drained before the effusion had become purulent. It is a matter for serious consideration, from this, as to whether it is advisable to perform early pericardotomy in cases of bone disease before the effusion has become purulent. The evidence seems all in favour of so doing.

In the first place pericardial effusions occurring during the course of osteomyelitis, if not purulent in the early stages, almost invariably become so later on in the disease, for being pyæmic in origin there are usually co-existing abscesses present in the heart muscle. Then the danger of the operation itself is much less if it is done early for the general resistance of the patient is then altogether higher. Further, the mechanical interference to the heart's action which the fluid exerts will be removed and hence the heart and circulation will be in a better condition to deal with the foci of infection, both locally and in the heart wall itself and elsewhere. If, on the other hand, the fluid is allowed to remain until it becomes purulent the outer layers of the heart muscle, bathed in pus, will lose their vitality with great functional impairment of the whole organ.

Blind needling of the pericardium in more than one case has led to puncture of the heart itself, a dangerous accident; what is more, it is almost impossible to drain a pericardium efficiently by needling because the bulk of the fluid lies behind the heart in the oblique sinus and is difficult to get at. The heart is thus pushed forward and is directly in the way of the exploring needle.

Finally, if the pericardium is drained before pus forms, adherent pericardium is a less likely sequel when the patient has recovered from the primary disease. Just as in other serous cavities, such as the abdomen, where adhesions are uncommon in serous peritonitis, but common in the purulent form.

In conclusion, the successful treatment of purulent pericarditis depends first of all upon the early diagnosis and treatment of the bone lesion. If the bone is efficiently drained at an early stage in the disease this complication can

often be obviated. On the other hand, if the patient is left too long before active intervention is resorted to, pus may make its appearance in the pericardium at a very early date.

There is no definite index as to how long it takes for a pericardial effusion to become purulent. It is very variable and depends upon a variety of factors such as the virulence of the infecting organism, efficacy of drainage of the bone, length of history before operation. In every case of osteomyelitis a sharp look out should be kept for the appearance of a friction sound at the base of the heart. When it is quite definitely present, the heart should be examined at least every six hours for the rub may change its position and fluid appear quite rapidly. If fluid is present recourse may be had to needling, but as a diagnostic measure rather than as a method of treatment. If fluid is withdrawn then the suggestion is that immediate pericardotomy should be performed.

BIBLIOGRAPHY.

J. Eliot. Annuals of Surgery, 1909, xlix, 60.
Peters. Edin. Med. Journ., 1903, xiii, 209.
Delorme. Rev. de Chir., 1895, xv, 797.
Allington. Brit. Med. Journ., 1904, i, 106.
Stone. Journ. Amer. Med. Asso., 1919, lxxiii, 252.
Ballance. Lancet, 1920, i, 1, 73, 134.
Porter. Annuals of Surgery, 1900, xxxii, 769.
Brentano. Deutsche Med. Worken Scheft, 1898, xxxii, p. 506.
Souligous. Buell et Men. Soc. de Chir. de Paris, 1911, n.s. xxxvii, 334—375.
Theyer. Buell. John Hopkins, 1904, p. 149.

The Light Side of a M.O.'s Life in the Army.

By FRANCIS HEATHERLEY, F.R.C.S.

(*Continued*).

If you should find your clerical work interfering with your practical work of looking after the men, have no scruples about cutting it down and cooking it if you fail to acquire more clerical help.

For instance, it is quite possible that Brigade Headquarters may some day evince a desire for full and elaborate statistics on Inoculation, requiring quite a different compilation from that required by the D.D.M.S. Of course, if the latter's figures have to be sent on Saturdays, Bde. H.Q. will demand theirs by noon on Wednesdays.

Now I suppose a conscientious bookworm would spend three hours elaborating a fresh lot of figures and so miss an opportunity of doing something practical, such as inspecting the men's feet after accompanying them on a route march.

Under such circumstances my advice is cook the Brigade's statistics, but be careful to keep a copy.

In the same way don't lose your hair or use bad language if some afternoon when you are busy the adjutant passes on to you a polite request from Brigade Headquarters for a complete return to be rendered by noon next day of (1) men who have not been vaccinated, (2) men who have been vaccinated, but not revaccinated, (3) men revaccinated and (a) taken, (b) not taken, (4) men who have been both vaccinated and inoculated as well as those (a) with previous history of smallpox or scars of same, and (b) men with previous history of typhoid, to be also enquired for under heading enteric.

Of course, unless the C.O. were willing to suspend all battalion work for two or three days, which is not exactly likely, the real figures, including the men away on courses or leave, would take about a fortnight to collect.

Don't go to the adjutant for sympathy and help for he also has little troubles of this kind to vex his spirit and all you will get is ribaldry, unless he has visions of sick leave.

If you want to salve your conscience get one of your men to collar the first ten men who pass your tent and examine them so that to any future enquiry you may be able to reply that your figures are founded on the careful examination of as many men as could be made available in the limited time allowed.

You had better start by sending across to orderly room for the battalion strength for the day, because this is a figure they can easily check.

The rest you will do "a luce naturæ" that is with a cigarette in the left hand.

If percentages are called for, provide them to two places of decimals, but see that they tot up correctly.

To add verisimilitude give an additional group, (5) men not available, for various reasons, for purposes of return.

Get your clerk with the best handwriting to copy your figures out into neatly spaced columns and as a finishing touch add a few explanatory notes.

These should be in red ink. I, personally, prefer green because it is rarer and at the same time symbolical of innocence, thus in the various columns:—

*20 have been too recently vaccinated for the result to be known.

†One of these alleges smallpox, but from the scars being limited to the trunk I favour chickenpox.

‡Two others claim to have had enteric, but it was evidently scarlet fever so have not included them.

After this work of art is complete see that they sign for it in orderly room in time for the post, for you must always bear in mind that it is a grave dereliction to fail in rendering a return by the hour stated. And then away to tea with an easy conscience as you will never hear any more about it. Do not fear that Bde. H.Q. will cavil at the inherent improbability of your figures, they are only anxious that the time limit should not be exceeded as they are only agents for the genius at the W.O. who instigated the enquiry and who will drop it unread if it turns up at the appointed time.

But whatever you do, don't delegate a delicate task like this to your medical corporal.

One of mine took upon himself a day or two before I gave him the sack to render such a return off his own bat and he put the lid on it by forging my signature and by making two mistakes in its spelling. Otherwise it probably would have escaped attention.

In the same way if your C.O. will not fall in with your suggestions after hearing your reasons for same, do not quarrel with him, yield gracefully after arranging how to get your own way in the end.

For instance, in a battalion in which very few of the men had been either re-vaccinated or inoculated and in which there was a decided set against being done, I found by questions asked me by their officers that these were very ignorant about these measures and rather prejudiced against them.

Now in any important movement which is open to failure no time is lost by careful preparation of the ground before taking action, and as public opinion among the rank and file is often founded upon opinions filtering down from the upper strata I thought that my best plan would be in the first place to lecture to the officers on the subject.

So after fixing a suitable date with the adjutant I wrote to the C.O. offering to lecture on Vaccination and Inoculation and other modern methods for the prevention of disease. He replied in a curt note approving of hour and date, but substituting First Aid as my subject. Of course this made me feel jolly wild, as your sister would say, but after cooling down I answered thanking him for his suggestion which I adopted with pleasure, but as the subject might not prove as attractive as its importance should make it, might I rely on him to get me an audience.

He saw to that and also came himself. Now in lecturing to fellow officers avoid talking down to them, rather take the line of suggesting to them how to instruct their men.

So I started by suggesting that the first principle they should inculcate when instructing their men in the management of a casualty was to keep their hair on and not to rush the thing.

Then I glided on to the futility of trying in two or three lectures to turn N.C.O.s and men into surgeons by trying to teach them the names of a lot of bones, muscles and arteries, and, above all, the distinction between arterial and venous hæmorrhage, dear as it was to St. John's Ambulance lecturers, was a subject best left alone.

Then as to stretcher drill I said I would like to be favoured with their candid opinion after the lecture and explained that I had not hitherto taken any steps to comply with the curriculum because, although it looked pretty to see little bugler boys doing stretcher drill, especially if they kept time nicely whilst the band played, I myself thought that if O.sC. Coys. would arrange to let me have a few of their heftiest N.C.O.s and men for an hour once a week to be taught the fireman's and other lifts and to get accustomed to unfolding a stretcher we should thus achieve more practical results. I asked them how far, in their opinion, the buglers would be able to

carry the regimental Sgt.-major, if wounded; the said R.S.M. weighed 15 stone stripped.

By the time the laughter cleared I was well into the subject of inoculation and kept there for the rest of the three-quarters of an hour, and at the end the C.O. with a twinkle in his eye said it was the most interesting lecture on First Aid he had yet sat through.

I think you will find it a great mistake to try to drive English lads. I have come across units in which the M.O. being weak, the officers have taken the matter out of his hands and have penalised men in various ways for not being inoculated and it has invariably had undesired effects.

One unit to which I was posted being almost mutinous in this matter, the C.O. deplored the obstinacy of his men and said he was quite prepared to stop all leave or adopt any punishment I could suggest if they declined any longer to be inoculated.

I asked him to wait till they knew me better and after mixing with them for a week I arranged with the battery commanders to lecture each battery in turn, the hour fixed being half an hour before dinner.

Here I should like to digress to point out a pitfall. Never make important arrangements with anyone inside or outside the battalion except through the adjutant, because he, of course ought to know what is going on.

On the day I was to lecture to A Battery the men were drawn up in three sides of a hollow square surrounding a table at which my orderly sat with writing materials; after telling them they could sit down and smoke I said that I gathered that they were trades unionists and that many of them would be willing to be inoculated if I would grant them two days leave as the M.O. of another unit was reported to be doing.

I was an admirer of the trades union spirit, but would point out that in this matter they were running it against their own interests. That what the other M.O. was reported to be doing was against the regulations. The regulations were that a man was to be wholly excused duty for 48 hours after each dose. This, of course, was not as attractive as 48 hours' leave, but the regulation was for their own good, for any exertion after inoculation, whether taking the form of drill for duty or football or dancing for pleasure was likely to make them feel very ill.

Therefore, even if allowed by the regulations I would not give leave, because it was not for their good, that I believed thoroughly in the protection afforded by inoculation or I should not be there that day.

That I had been done myself and strongly advised them to be done as I thought it a pity that any man should be baulked of his desire to fight for his country by contracting typhoid before he could meet any Germans.

That I had improved on the Government method by substituting a fine hypodermic needle instead of the usual big serum needle, and demonstrating on my own forearm showed how little it hurt.

Then I said that they need not fear that I would be a party to any plan of underhanded compulsion; that on the contrary I favoured the plan of sending to the front as soon as possible any fools who declined to be protected so that they might at any rate serve their country well by proving in their own persons that more died who had not been protected.

Then I said that at their age I was not fond of lectures and supposed that they were the same.

I also said, looking over towards the cookhouse, that when I once started on my favourite subject it was always doubtful when I should finish.

As the object of the lecture was to persuade the unwilling it was obviously waste of time for those who were willing and here I had pleasure in delivering a message from their colonel to the effect that he was willing to lead them in this as in other more important matters and that he had offered to be publicly inoculated if any would volunteer to follow him. This I may say was the only item of the arrangements which had given me any difficulty.

Here I said there would be an interval to enable volunteers to give their names to my corporal, after which these could fall out. When he had taken down about 40 names and the stream was thinning I said if another 20 men would volunteer I would instead of lecturing tell them funny stories till the dinner bugle blew.

I may say that I had made a hit a few days before with a few contributions at a Brigade smoking concert.

I did 85 inoculations that day before tea, and at the Colonel's suggestion there was a free distribution of tea and coffee that evening to sufferers who felt feverish.

I dare say I should never have delivered my lecture at all if it had not been that the Ammunition Column having licked each battery in turn at the tug of war, when their turn came insisted on the lecture being given so as to add it to their trophies.

It was short and informal and soon resolved itself into questions and answers. One of my questioners was a Boer War veteran who turned out to be a determined heckler. He solemnly declared that 80 of his mates in that war died from being inoculated.

I said that the statement was absolutely untrue, that I didn't mean that the gallant bombardier knew that he was spreading an untruth, but that I quite believed that it was he or his brother who started the myth of the Russian army travelling through England from the North. He, of course, indignantly denied this, but admitted that at the time he had believed in this myth. I said we could shake hands as I also had been deceived by it.

Then, as a happy thought struck me, I asked if by chance he had ever had enteric. He admitted that he had spent eight weeks with it in hospital in Pretoria. So I said "Here, boys, is the parting of the ways, either follow the gallant bombardier with eight weeks in hospital and the chance of more to follow in the cemetery or follow me and do without typhoid."

Here are one or two tips for impressing men with your knowledge of things in general. If an ex-artillery man presents himself if tall presume he was a gunner, if short a driver. If a man on stripping shows blue lines tattooed down his back tell him he's been a miner. Even without them it is safe to say he's a miner from the North if he wears a fringe in front and has the rest of his head closely cropped like a little girl with ringworm.

In case I should forget here is another piece of advice; under no circumstances run into any unnecessary danger, you will find enough in the day's work and it is wicked to go and get disabled through perhaps idle curiosity just when you may be greatly needed.

If you ever have to examine any recruits do be careful not to enlist a weak-minded man. It is a mistake easily made owing to the examination being devoted principally to the detection of bodily defects. Always be suspicious of funny shaped heads.

It is as easy to get into the army as to get married, but not much easier to get out of it than to get divorced.

At the same time be suspicious of the weak-minded man whom the N.C.O.s consider to be a born idiot who ought to be discharged forthwith.

He is not always as simple as he looks.

I remember one who was the despair of his officers and who, whilst awaiting his discharge, was often given light duty to get rid of him. One day whilst peeling potatoes for the Officers Mess he heard the cook complaining that some one had maliciously damaged his bandolier. Our softy shyly confessed that in civil life he was a leather worker and if entrusted with the bandolier thought he could satisfactorily repair it.

The next day he returned the bandolier so beautifully repaired that no one could see where it had been mended. Bill, the cook, was so pleased that after a little hesitation he forked out half-a-crown, but a fortnight later his feeling of gratitude underwent a revulsion.

The Quartermaster wished to see him at once about his bandolier which had been found in a ruined condition with the idiot's equipment about to be returned to store, the idiot having managed to pass it in undetected on taking his discharge.

Bill had to explain how he came to be wearing the idiot's bandolier and he also had 12s. 6d. stopped out of his pay for repairs.

The humiliating feature was that in civil life Bill had been a stalwart policeman.

I should not care to repeat his language.

I don't know how it is but the artillery always seem to get the reputation for language.

In Bill's case it was spontaneous and unconscious, for at heart he approved of my efforts to check it. On one occasion I heard him reproving one of his men in these terms:—"If thee don't stop using thy —— language, I'll send thee to the —— doctor who'll give thee —— mouth wash to clean thy —— mouth."

On another occasion a field company of R.E. happened to occupy the next field to ours and only a hedge separated my tent from their men's. I told one of their officers, who had strict views about language and considered our men hardly fit to associate with his on this account, that on the previous evening I had lain awake and heard some of his plumbers after "lights out" quarrelling about a missing shilling.

The extraordinary richness and variety of the adjectives used proved such a revelation to me of the untold depths of the English language, that if he could at any time give me timely warning of a dispute about half-a-crown I should be deeply obliged.

If you are asked to try and procure the discharge of a weak-minded man, even if his N.C.O.s tell you that he is not fit to be trusted with a rifle in case an accident should happen to his favourite sergeant, I should advise you to try and find some physical defect on which to found your recommendation.

In this artillery unit above mentioned we had a man who whenever he got too much drink, which invariably happened soon after getting enough money, which was not often, became a homicidal lunatic.

The history was that my predecessor had been to great pains in getting up a strong case and then on the eve of his being boarded all the documents had gone astray and never been recovered.

All that I could find about him on his medical history sheet was that on his right forearm he bore a tattooed portrait of Buffolo Bill and on his left clasped hands and a dove, but there was no record whatever of a more sinister mark, a scar six inches long across his throat, the result of attempted suicide.

He admitted having been in an asylum, but could not remember which and application to the neighbouring institutions failed to produce any evidence, whilst it was of no use applying to his wife and relatives as these, for reasons easily understood, had long since cut adrift and left no address.

Opinion in the battalion seemed unanimously in favour of early discharge, not least amongst those who had previously given evidence against him and to whom the return of pay day meant increased watchfulness.

The man had been made a cook, not that he was fitted for the office either by nature or art, but simply because as a cook he had to sleep by himself in the battery food tent.

I got a signed statement from one man that whilst shaving himself one evening before going out Sam had rolled up to him drunk, taken the razor from him and slashing him down the arm with it had told him with a truculent laugh that it would do him good to accustom himself to the sight of blood.

Another signed statement was from the Quartermaster Sergeant, a little gamecock of a chap, who deposed that one afternoon as he lay asleep on his camp bedstead Sam came in with a carving knife intent on settling a grievance. The men's warning cries had awakened him in time to jump up and save his life by landing Sam a violent kick far below the belt.

Any reasonable outsider would think it quite a simple matter to get rid of a brute who was evidently likely to provide work for the coroner.

Not so. The first medical board before whom I brought him said that they could not deal with the case because I had filled in an A.F. 179, whereas a mental case ought to be dealt with on A.F. 283.

A.F. 283 they said was the most difficult form of the army forms to fill in correctly and that if I would provide myself with some A.F. 283 the junior member would ride over some afternoon and show me how to do it. Meanwhile, being sincerely desirous to help me they suggested, unofficially, that I should bring him forward on some physical defect and they would deal with him.

I pointed out that although he looked fat his 14 stone was mainly muscle. Had it been otherwise his mates would have dealt with him without outside help.

Of course that ride of the junior member never came off and so I subsequently filled up an A.F. 283, on my own. When that was finished my corporal, who was tidy in his habits, wanted to tear up the A.F. 179, but I luckily stopped him.

At the next travelling board I was told that the case was simple. If the man were insane all I had to do was to certify to that effect and have him removed to the nearest asylum. I pointed out, unavailingly, that although the man was not insane he became homicidal when drunk. The President was of opinion that we were making too much of the scar and that the man was really inoffensive if we took reasonable care in keeping him sober. With his little pig's eyes he looked like a good humoured rhinoceros. The President seemed to take such a fancy to him that I said that if he happened to be in want of a strong, healthy bâtman I was sure the Colonel would willingly lend him.

The President took no notice of my offer, but went on to say that it was ridiculous to present the case on an A.F. 283 and that had it been on an A.F. 179 he would have

dealt with it, and there, to his evident surprise, I had him.

Sam and I parted on friendly terms.

I knew his ambition was to be a barman and as the President had sided with him I had no hesitation in telling him which hotel he was staying at so that he might try and get him to use his powerful influence on his behalf.

A thief is just as unwelcome a recruit and is apparently just as difficult to get rid of.

Of course this does not concern the medical department, but I remember one man we had who made the Adjutant's life miserable with his activities.

This thief was a quiet, inoffensive dreamy and dirty little chap and whilst he was in the camp nothing portable was safe. Towels hung out to dry vanished, men after inoculation complained of money in their tunics missing. Proceedings had to be taken against civilians for buying boots from him and the only time we had peace was when during his absence his description was being circulated by the police as that of a deserter. Enquiries made of the Chief Constable of his native town resulted in a list of previous convictions as long as your arm, invariably for the same kind of petty larceny.

The Adjutant at last appealed to me for my friendly offices and accordingly I brought him up before the next travelling board on an A.F. 179. Of course I only had a weak case which the little blighter spoiled by traversing most of my statements so that in the end I got rapped across the knuckles for bringing forward a purely disciplinary case.

There must be something wrong in the army mechanism for in this case the Adjutant had been a legal luminary and would not have resorted to unconstitutional methods unless absolutely forced, but anyhow his tactics proved as successful as they were simple.

Prompted by tactful suggestions some of the men explained to our little gaol-bird in confidence how a fatal accident sometimes cut short a career of crime. He was also told where a bundle of "civies" might be found on a certain afternoon and that in a trouser pocket it was just possible that the lucky finder might discover a third single to his native town with enough change for a few drinks. But that unseen eyes would be watching him and that if he did not go by the next train means would be found to arrest him in the station and that if it so happened that in struggling with his guard he happened to fall on the line just as the express thundered through it would be a happy accident. He was assured that as long as he kept in his native town nothing would induce us to trouble him. You will say how about his description circulated as a deserter, but you see the Chief Constable and the Adjutant were old acquaintances.

(To be continued.)

The Fable of the Superior People.

Dear Mr. Editor,

When Mr. Punch discusses life's little ironies, he hands his readers his hundredth and, whatever-it-may-be, volume by way of advice. When next any one of your readers is asked to advise his patient, about the most popular form of mental healing; do you think he would care to prescribe this fable? If it contains some things by way of "a little judicious levity"; I do not think the author intends to be flippant.

Yours faithfully, H. B.

NOW when civilisation had progressed a long way, both in good and evil, there developed a sect of people, who were a little bit superior to the rest. They were kind and cheerful, with many excellent qualities; but most of all they took pride that no sickness ever touched them. This was the foundation of their faith; to abolish illness by believing that matter was unreal; and prove their proposition, by saying, that with this assumption illness vanished, and therefore it was justified.

And a certain man came to one of their meetings, complaining of great pain in his inside; so that he thought he had cancer.

"But there is no such thing as cancer:" said The Superior People.

"I see:" said The Man. "Then I cannot have cancer."

"No:" said The Superior People. "You cannot."

And The Man went away, and returned next week.

"Well?" said The Superior People.

"It is wonderful:" said The Man. "My pain has gone. There is no such thing as cancer."

"When you have our faith;" said The Superior People; "you cannot be ill; for only Mind exists, matter is unreal."

"I see:" said The Man. "It is marvellous. How I wish I had held your faith before."

And The Man walked home, thinking of Mind only; so that he was knocked down by a motor car, and taken to hospital. He was examined by a surgeon, who pronounced his leg broken. "I must put it in splints:" said he.

"But it cannot be broken:" said The Man. "I believe in Mind only; there is no such thing as matter."

"It is a free country:" said The Surgeon. "You may go home, if you wish."

"But I cannot walk:" said The Man. "My leg gives way."

"Well, well:" said The Surgeon. "I will admit you; and put on the splints. If your leg is not matter, my splints won't either." And he smiled, as if he had said something witty. And The Man passed a painful, sleepless night; and sent for the chief of The Superior People next morning.

"How is this?" said The Man. "My leg hurts. I cannot walk; and the surgeon says I have broken a bone. I do not believe in your faith any more."

"Dear me:" said The Superior Person. "How unfortunate. But we have not told you all. You will feel better, when you understand. Bones are sometimes broken. Such things could not be, if all the world had our faith; but there are certain evils, one of which is a broken bone, which the world in general believes in, and doctors more than anyone. And, because their belief is so strong, we have to admit that fractures occur; but someday we shall abolish them, when our faith is wider and more perfect."

"I see:" said The Man. "It is rather disappointing; but my broken leg is really caused by the unbelief of the world at large; and by this surgeon in particular, who put the splints on. I should like to break his neck. It might teach him a lesson."

"When you have more faith:" said The Superior Person; "you will be more calm. I, for myself, do not believe my leg could break."

"I should like to try and break it:" said The Man.

"Poor fellow:" said The Superior Person. "However, your case is not so very bad. I will go home and give you absent treatment; for now that the surgeon has set the limb, we can heal it for you by this absent treatment. Come to our meeting place in two months time, and tell me if I do not speak the truth."

And the weeks went by, and the pain ceased, and the splints were removed, and The Man came to the meeting place, and he said: "It is wonderful. First you cured me of cancer; and now you have healed my broken bone. But I have been thinking. If the want of faith of the outside world lets evil occur, even unto us; why do we not go away to some small world of our own, where all evil and sickness may be abolished."

So The Superior People thought about it; and decided to go to some island, where there would be no faithless.

Now The Man made a friend in hospital, who was attracted towards The Superior People; because, although he was quite well, the doctors called him a typhoid carrier. And The Man's Friend asked, if he might come too. And The Superior People said: "There is no such thing as typhoid." So The Man's Friend said: "Then I cannot carry it." And The Superior People said: "No, certainly not."

So The Man, and The Man's Friend, accompanied The Superior People across the seas. And, if any were sea-sick, we have no record of the fact.

And time passes, and the fable ends, with a conversation between The Man's Friend and the doctor of a certain ship, which happened to call at the island.

And The Man's Friend said: "Then all these people are ill, and many have died, because I brought the germs of typhoid fever to this island?"

"Yes:" said The Ship's Doctor.

"But I thought there was no such thing as typhoid fever; at any rate for those who had no fear, and believed in Mind only, and that matter was unreal:" said The Man's Friend.

"It is all a question of words:" said The Ship's Doctor. "The Superior People, I believe, say that God made everything. Let us

put it, He made man. Did He not, then, make microbes? A microbe is as real as a man; and they are far more numerous. Marcus Aurelius accounted his body a small thing in time and eternity, compared with his soul; but he did not call it unreal."

"I see:" said The Man's Friend.

"These people at home:" said The Ship's Doctor; "were protected from epidemics, by medical science."

"But are they not right about fear?" said The Man's Friend.

"There is a great deal in it:" said The Ship's Doctor. "And the best doctoring drives out fear."

"Is there not much in faith healing?" said The Man's Friend.

"Of course:" said The Ship's Doctor. "Much of the healing art consists of putting the patient in the right state of body, and mind, to get well. But we are all on our last journey from the cradle to the grave; and health and disease are words, like hot and cold, to some extent relative terms."

"Then The Superior People have some truth; but not the whole truth?" said The Man's Friend.

"Do you think there is such a thing as the whole truth in this world?" said The Ship's Doctor. "But, if I were to preach a sermon on the search for truth, I should say it began with humility."

"And are The Superior People wanting in humility?" said The Man's Friend.

"Well:" said The Ship's Doctor. "Their philosophy claims to rise above, what the rest of us regard as, the laws of nature; which many sects have claimed for the soul; but no one else has denied, that the body is subject to natural laws."

"I wonder:" said The Man's Friend; "if they would deny your statements."

"You cannot argue with them:" said The Ship's Doctor. "Words, with an ordinary meaning, have unusual meanings for them. I have sometimes thought they had no meaning at all. In a serious attempt to refute their philosophy, I should be tempted to try my hand at a fable."

Reviews.

High Blood Pressure. By J. F. Halls Dalby, M.A., M.D. 1st edition. Published by Messrs. William Heinemann (Medical Books), Ltd., London. Pages xii+155. *Price* 10*s*. 6*d*. *net*.

THIS book, "a manual for practitioners," on the variations and control of high blood pressure, is a manual on the technique and uses of sphygmomanometry. The technique, with descriptions of the various kinds of sphygmomanometers, occupies the first quarter of the book, the rest being taken up by the physiological and pathological causes of "hyperpiesia" and its control. There does not appear to be a great deal of special information that is not already in the medical text-books, in fact, the author seems rather to have reiterated the signs, symptoms and treatment of various diseases, e.g., acute nephritis, in which the blood-pressures are abnormally high. The book will probably be read with interest by many physicians, but we doubt if this treatment of this subject is worthy of so large a book.

Minor Surgery and Bandaging. By Gwynne Williams, M.S., F.R.C.S. 18th edition. Published by J. & A. Churchill, London. *Price* 10*s*. 6*d*. *net*.

A BOOK for "house-surgeons, dressers and junior practitioners" that has reached an eighteenth edition in sixty-three years, carries in its record its own recommendation. The book has had embodied in it the latest methods of treating fractures, especially those of the lower limb, while concise descriptions of gas and oxygen anæsthesia and the citrate method of blood transfusion are other innovations. It is a book that is well known and deservedly popular and the present edition, having been brought up to date, is more valuable than ever.

A Whiff of Old Times. By John Wishart, M.D., D.Sc., Ch.B., F.L.S. Published by Messrs. John Wright & Sons, Ltd. *Price* 3*s*.

DISREGARDING the title, there are several reasons which militate against this anthology of prose and verse being bought. The first is that the book contains only one hundred extracts; another is that the book is bound between pasteboards of unattractive style; and another is that it costs three shillings. Three shillings is a large sum to play with, now that there are so many splendid cheap editions on the market, and therefore one is entitled to expect something more satisfactory than the present volume. Of course, in a way, the publishers are to be sympathised with in their attempt to reconcile medicine with literature, but surely they must have known that, despite the recent assurances of Mr. Edmund Gosse (who has read a paper before a medical society on the association of medicine and literature), these two arts do not go easily hand in hand.

As to the substance of the book itself, there are at least three extracts which, noble as they are, have by this time outstayed their welcome in any anthology. Respectively, they begin :—

1. "To be, or not to be."
2. "All the world's a stage."
3. "Wee sleekit, cow'rin, tim'rous beastie."

Undoubtedly beautiful passages, glorious pinnacles of literature and art, but too expensive to be retailed at three shillings.

Many of the extracts are presented here on account of their quaintness. We are treated to descriptions of the number, size, and weight of stones treasured from lithotomies or of various physical prodigies.

Thus : "Driptine had a double row of teeth; and though this is very rare in mankind Columbus's boy Phoebus had a triple row of teeth."

Or : "Charles, the son of Richard Charlesworth, at five years old weighed 87 lbs, was four feet seven inches high, could carry a man of fourteen stone weight, had hair on his body as a man, and every sign of puberty, and worked as a man at his father's business."

Or : Dr. Cheyne, who "when between thirty and forty years of age, had, by indulgence in the pleasures of the table, swelled to such a size as to exceed thirty stone."

This kind of entertainment quickly palls, and avoiding the more grotesque selections, we do well to come upon an excellent piece of prose such as this :—

"In the present philosophical age, when one profound discovery succeeds another, and darkness is, as it were, converted into light; by which the old maxim, sanctimoniously revered in the cloudy age of our ancestors, is now discovered to be the effect of prejudice and error: The old adage, that 'honesty is the best policy,' is now become antiquated; and the present enlightened generation has discovered, *policy to be the best honesty*, and the best adapted to the age we live in. . . If a physician was to be so honest, as to advise his patients to take air and exercise, in place of his prescriptions, he would soon find, to his great mortification, that he would be obliged to regale himself on a diet of the same."—(Queech, in *The Bee*, 1792.)

But our own favourite is the following letter, which, we are sure, would secure an immediate position even in Carmelite House :—

"To the Editor,

Sir,—I am a man of genius who, like many others of the same class, am sometimes in want of a little cash. It is possible, sir, you may be sometimes in need of a little of my assistance in my technical capacity; and as I shall, at all times be glad of your assistance in supplying my deficiences, we may, if you please, establish a correspondence that may prove advantageous to us both. My genius, Sir, is not confined to any particular line: it takes in the whole bounds of nature."—(Timothy Hairbrain, in *The Bee*, 1791.)

Correspondence.

DEAR SIR,—Does the Hospital play any cricket matches in these days? I believe I am right in saying that practically none were reported last year; and so far this year there have been no reports, with the exception of the "rag," in your issue of May 24th. Some of us are still interested in the Hospital cricket, and would be happy to know if the greatest of games still flourishes in the old place.—Yours, etc.

FRANK J. NICHOLLS.

Eastbourne,
June 9th, 1924.

[In spite of the wet weather we understand that several matches have been played this year and look forward to publishing the results. At the same time we regret that any of our readers should have been misled into thinking that the match between the Fagge Firm and the Indefaggibles was in the nature of a "rag." It was the most serious and hotly-contested of matches, in which both sides were completely dressed in cricket clothes; each batsman wore two leg guards and each side scored more runs than have been obtained by several of the leading first-class county teams this season.—ED.]

Sport.

Inter-Hospital Athletic Sports.

ONE day soon I am going to join the Slade Art School and am going to learn to paint pictures. Then, after a week or two, when I have become very proficient, I shall produce my masterpiece, "The Spirit of Guy's." And this will be the picture. A small school-boy of some fourteen years, British, but more than commonly dark-hued, will be portrayed, standing in a puddle of water with a glowing irridescent halo round his school-boy's cap. The rest of the canvas—or it may be sheet of note-paper or sack cloth—will be filled with a vista of hands and mouths, all far-distant and reflecting the light of glowing fires and comfort, and the hands will be applauding vigorously and the mouths will be shouting "Guy-Guy-Guy's." And I shall stand at the Royal Academy or in the "Spit" or wherever the picture is hung and shall explain: "This small boy is the younger brother of one of the performers. He is a hero-worshipper at the shrine of his big brother, and he has travelled far through fair weather and foul to see him do great deeds for his hospital. And the hands and mouths are the children of Guy's, who have not travelled at all to see any deeds whatever performed for their Hospital, but have stayed in comfort at home and when told of success, have said 'jolly good,' and, when of failure, have sighed 'we are not as good as we were.'"

The Annual Inter-Hospital Sports were held, between showers, at Stamford Bridge on Wednesday, May 11th, and by the most excellent margin of 58 points we regained the Shield from Bart.'s. Steyn as usual won his four events in grand style, while Harrison, a new member of the team, put in a hard afternoon, scoring points for his Hospital. It was unfortunate for Bart.'s that Stallard had been asked to save himself in view of the Olympic Games, but his victory in the mile would not in any way have affected the result of the sports.

There were quite a large number of spectators, if one included the band, and to the Hon. Secretary we offer our sympathy, for so few signs of appreciation of what we know is a very strenuous task, the task of organising these annual sports.

The results of the races were :—

100 *Yards.*—1, C. L. Steyn (Guy's); 2, G. K. Lacey (Guy's). 3 yds. Time: 10 2-5 secs.

220 *Yards.*—1, C. L. Steyn (Guy's); 2, C. W. Harrison (Guy's). Easily. Time: 22 3-5 secs.

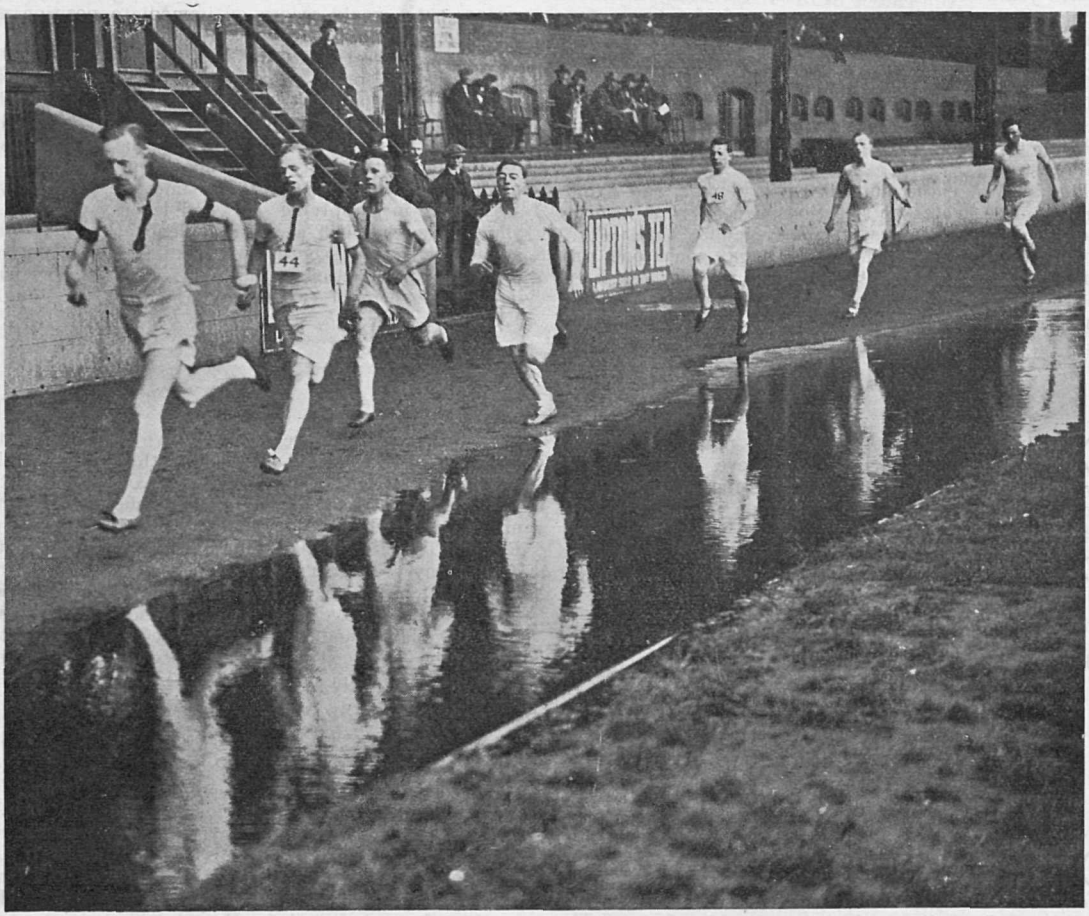
High Jump.—1, T. Marsh (King's) 5 ft. 9¾ ins.; 2, J. D. Allen (Bart.'s) 5 ft. 8¼ ins.

Long Jump.—1, C. L. Steyn (Guy's) 22 ft. 0¼ ins.; 2, W. Hertzog (Guy's) 20 ft. 10¼ ins.

120 *Hurdles.*—1, W. Leslie (Guy's); 2, C. W. Harrison (Guy's). 2 yds. 18 1-5 secs.

Weight.—1, E. W. Hutchinson (Guy's) 36 ft. 4 ins.; 2, R. D. Reid (Bart.'s) 33 ft. 6½ ins.

Hammer.—1, R. D. Reid (Bart.'s) 92 ft. 4 ins.; 2, H. Astley-Cooper (King's) 87 ft. 10 ins.



The field led by H. B. Stallard (Winner) Barts, in the Half Mile race, showing the flooded track. A. S. Gough (Guy's) is running behind Stollard, and the crowd can be seen in the background.

440 *Yards.*—1, C. L. Steyn (Guy's); 2, C. W. Harrison (Guy's). 5 yds. 52½ secs.

880 *Yards.*—1, H. B. Stallard (Bart.'s); 2, F. W. Ta'Bois (London). 12 yds. 1 min. 59 2-5 secs. (equals record).

1 *Mile.*—1, R. C. Lightwood (King's); 2, G. V. Rake (Guy's). 3 yds. Time: 4 mins. 43 3-5 secs.

3 *Miles.*—1, R. C. Lightwood (King's); 2, W. W. Darley (Bart.'s). 6 yds. 15 mins. 55 1-5 secs.

Tug-of-War.—Guy's beat Bart.'s two pulls to nil.

Relay.—1, Bart.'s; 2, Guy's; 3, King's. Time: 3 mins 45 secs. Guy's Team—C. L. Steyn, G. K. Lacey, C. W. Harrison and A. S. Gough.

Points for Shield—

1. Guy's, 112 points.
2. Bart.'s, 54 points.
3. King's, 34 points.
4. London, 6 points.

Guy's Hospital Hockey Club.

THE Annual General Meeting of this Club was held at 1.30 p.m. in the Physiological Theatre on Monday, 26th May, 1924, the President, Mr. F. J. Steward being in the chair. There were also present Mr. A. W. Ormond, and Dr. E. G. Poulton, Vice-Presidents, and a good attendance of members of the Club. The minutes of the last meeting were read and duly confirmed.

The election of officers for the next season then took place. The President and Vice-Presidents (Messrs. E. C. Hughes, C. H. Fagge, A. W. Ormond, L. Bromley, and Dr. E. P. Poulton) were unanimously re-elected. M. F. Awdry was elected captain, T. G. Kingsbury vice-captain, R. L. Duchesne hon. secretary, and the committee, as follows—The President, Vice-president, captain, vice-captain, and secretary ex officio, and J. W. Scollum, W. S. Hunt, I. P. Spurrell, E. T. Conybeare, R. L. Cautley, and L. Catchpole.

Notice was given that a most generous offer had been made by Mr. Ormond to give a donation towards some prize, to be decided upon by the Committee, for the benefit of the Club, and a hearty vote of thanks was accorded him. The secretary also announced that by permission of the Dean negotiations were proceeding with a view to getting a seven year lease of the ground so kindly lent to the Club by the Nestanglo Sports Club.

A short resumé was then given in which the secretary suggested that the Club might look back with satisfaction on a good season's work. The 2nd XI Cup had been won, and in spite of a somewhat unduly ambitious fixture list the club had successfully held their own. They had defeated St. Laurence College, Ramsgate, a side which had been unbeaten during the two previous seasons, and the Ley's School, Cambridge. In addition several members had received their colours in the United Hospital side, of which W. S. Hunt was the captain. In the five matches played, Guy's had been represented as follows:—W. S. Hunt (4 times), M. F. Awdry (5 times), K. Hooper (3 times), A. C. Kempe (3 times), N. Parkinson (3 times), R. L. Cantley (twice), R. E. Smith (twice), L. J. Barford (once). Of these, 7 were awarded colours.

The meeting then closed with a hearty vote of thanks to the President and Vice-Presidents and to J. W. Schollum for the able way in which he had captained the side throughout the season. Hospital Blues have been awarded as follows :—

Full Blues.—N. Parkinson, R. E. Smith, L. Catchpole, R. L. Cautley.

Half Blues.—E. B. Curtis, J. E. Willett, C. N. Howitt, E. Gillett, R. L. Duchesne.

M. F. AWDRY, Hon. Sec.

Guy's Hospital Golfing Society.

THE prizes given by Dr. Cameron were played for on May 23rd at Chislehurst; the results of the various competitions were as follows :—

Scratch Play over 36 *Holes*—
J. A. Anderson, 182.
E. J. Pye-Smith, 183.
D. G. Bown, 185.
Prize awarded to E. J. Pye-Smith.

Handicap Play over 36 *Holes*—
J. A. Anderson (hcp. 12), 182—24, 158 net.
J. P. Evans (hcp. 13), 188—26, 162 net.
E. J. Pye-Smith (hcp. 10), 183—20, 163 net.
Prize awarded to J. A. Anderson.

Handicap Play over 18 *Holes*—
J. A. Anderson (hcp. 12), 89—12, 77 net.
G. W. Gathergeed (hcp. 10), 89—10, 79 net.
E. J. Pye-Smith (hcp. 10), 89—10, 79 net.
J. P. Evans (hcp. 13), 92—13, 79 net.
Prize divided between G. W. Gathergood and J. P. Evans.

Handicap Play over 18 *Holes for those with Handicaps of* 14 *and over*—
Winner—W. G. Porter (hcp. 22), 105—22, 83 net.

The match against Broxbourne G.C. on May 25th resulted in a win for Broxbourne by 15 matches to 1.

The match against Shirley Park on June 1st resulted in a win for Shirley Park by 12 matches to 3.

The first round of the Inter-Hospital Golf Cup between Guy's and Bart.'s was played off on June 11th at Chislehurst.

The foursomes were played in the morning, and by lunch time Bart.'s were leading by three matches to one; in the singles Guy's won one match and Bart.'s seven; the final result being a win for Bart.'s by ten matches to two.

The Guy's team and results were as follows :—

Foursomes—

J. L. Glover and L. W. Cann, 2 up	1
E. J. Pye-Smith and C. M. Vesey, 3 and 1 ...	0
J. A. Vernon and J. P. Evans, at 19th hole ...	0
G. W. Gathergood and F. W. Schofield, 3 and 1...	0

Singles—

J. L. Glover, 2 up	1
L. W. Cann, 1 down	0
E. J. Pye-Smith, 4 and 3	0
G. W. Gathergood, at 21st hole	0
J. A. Vernon, 1 down	0
J. P. Evans, at 19th hole	0
C. M. Vesey, 1 down	0
F. W. Schofield, 4 and 3	0

Tennis.

THE Hospital Tennis Team journeyed to Kew on Sunday, June 1st, and between showers of rain successfully defeated the Priory Park Lawn Tennis Club in the third round of the Men's Junior, Inter-Club Competition, run by the Surrey County Lawn Tennis Association.

The final result was 6 matches to Guy's, nil to Priory Park, and 3 unplayed.

The following played for Guy's :—E. E. Nesser, H. Lewis-Philipps, E. N. Sharpley, D. R. Grant, —. Boyle, and —. Laurie.

The next round is to be played against the Beddington Park Lawn Tennis Club.

Hospital Information, etc.

The Incorporated Association of Hospital Officers.

THIS Association, which was founded in 1902 and incorporated in 1910, held its First Annual Conference at the end of last month. The majority of those who take in the GAZETTE, or even of those who read it, have probably never before heard of this Association, which exists to unite in a common bond all lay officers of the Hospital, to promote good fellowship amongst them and to interest them in the discussion and study of matters affecting their duties and responsibilities. In order to put an end to this ignorant state of affairs, we were sent by the Editor, at the invitation of a hospital officer, to the Annual Dinner of the Association, where lay officers, to whom we had been accustomed to bow distantly, sometimes with noticeably small effect, suddenly proved to be quite human and disclosed an affection for their hospital quite as sincere as, if less demonstrative than, their medical colleagues.

Mr. Eason presided over one hundred and fifty-five diners and the usual gentleman in pink kept a fatherly eye on Mr. Eason. The more dinners we attend—and until we were admitted to the editorial staff of this great paper we had had no opportunity of dining higher than Slater's—the more impressed we are with this ruddy baritone. The success of the evening depends on him. If the President rises to speak, it is he who eggs us on to cheer. He waves his notes and nods to us and smiles and shows his teeth and altogether behaves in such a very ridiculous manner that we simply have to cheer for the very joy of looking at him. And then, during the speeches, he looks so uncommon grave that we wouldn't dare rattle a spoon or glass and sometimes very nearly choke for fear of attracting his displeasure by swallowing. So if, during this short and bald account of a very delightful evening, you will imagine the entire proceedings being ordered by a sprightly gentleman in red, alternately capering and solemn, you will have gained some small part of the atmostphere of the Lay Officers' Annual Dinner.

The first speech was made by the Honourable Sir Arthur Stanley, C.B.E., C.B., who, in proposing the health and long life of the Association, gave a short history of its foundation and growth. Since its foundation twenty-two years ago, its membership had grown to over 500 members, who, drawn from the great hospitals all over England, met together to exchange views on all the questions relating to Hospital organisation and administration. Sir Arthur ended by eulogising the chairman and reminding him that St. Thomas's Hospital had sold to Guy's very cheaply a large part of their ground on moving to Westminster and had only retained the Public House at the corner out of interest in the students of Guy's.

To this Mr. Eason, who responded to the toast, replied that Guy's had paid a very good price for the property and that St. Thomas's had only kept the Public House against the time that the local Borough Councillors would pay exorbitantly for it in order to widen the street. The street having been widened from the other side, that fell design had been thwarted. The rest of this speech was composed of praise for all hospital Governors, particularly Sir Arthur Stanley, and a plea for a pension or superannuation fund for hospital officers.

Sir James Michell, C.M.G., Secretary of the Dreadnought Hospital, Greenwich, next proposed the health of the guests, particularly mentioning Viscount Cave, whose commission to enquire into the financial and administrative state of the hospitals saved the voluntary system.

In response Lord Cave, stated his implicit belief in the efficacy of the voluntary system and his ambition to see the future of all voluntary hospitals secured by the organisation of a King Edward's Fund for the Provinces.

There were several other speeches and an excellent musical programme, and the toast-master had now to contend with the usual post-prandial flow of wit and bubbling conversation; but we had other duties before us and felt bound to tear ourselves away, feeling that a hospital was an organisation still only half explored and that we had discovered a new and large part of it that evening.

Alteration to Time Table for Attendance of Patients in the Out-Patient Department.

Medical Cases—

Tuesdays, Dr. Marshall.

Wednesdays and Saturdays, Dr. Conybeare.

Surgical Cases—

From Tuesday, July 8th—

Mr. Davies-Colley, Tuesdays.

Mr. Bromley, Fridays.

Notices.

Demonstration of Hydrological Methods.

A DEMONSTRATION will be given at the Royal Mineral Water Hospital, Bath, on Wednesday, 9th July, 1924. Those who desire to attend should give in their names to the Medical School Office at once.

Students will be required to defray their own railway expenses, but they will be entertained to lunch and tea by the Baths Committee.

The programme for the day is appended :—

Leave Paddington at 9 a.m. Arrive at Bath at 11.39 a.m.

Demonstration of Hydrological Methods, 11.50 a.m.

Lunch, 1.30 p.m.

2.30 p.m. Demonstration at the Royal Mineral Water Hospital of Cases :—

1. Fibrositis.
2. Infective Arthritis.
3. Osteo Arthritis.
4. Gout.

4.30 p.m. Tea on the Roman Promenade.

6.20 p.m. Leave Bath. Restaurant car.

8.45 p.m. Arrive Paddington.

Deaths.

BARRIONUEVO.—On April 31st, 1924, at Costa Rica, Maria Teresa Montealigne de Barrionuevo, the wife of Jose M. Barrionuevo, M.R.C.S., L.R.C.P., a few days after an operation.

HOWE.—On May 22nd, 1924, at his residence, 94, Stephenson Terrace, Preston, Joseph Duncan Howe, M.R.C.S., L.S.A., at the age of 67.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *July 5th, 1924.* *Number 939*

PASSIM

TO those, who have yet to reach championship form in the local Croquet Club, the universal hero-worship of the Rodeo cowfolks is apt to be vexing. We are one of these and it is through no "Little Englander" spirit or disloyalty to our Empire that we do not enthuse over the steer-wrestling and broncho-bustin' of our empirical cow-boys and cow-girls—largely drawn from America though they be. While we sat watching the amazing feats of these men and women, we felt how very strange it was that the vast throng of spectators should find anything brave or courageous in the exhibition. On all sides could be heard exclamations of wonder at the daring and fearlessness of the riders, whereas in reality they were taking no more risks than a city merchant, who crosses the road below the Mansion House at noon.

It was not until we had seen the real "busters" followed by their amateur rivals that we realised for the first time wherein lies real courage. So-called "bravery" we saw at once was merely and entirely a matter of habit. Mr. Vandermeer, who with his colleagues was "born in the saddle," and has stayed in it ever since, must suffer much more uneasiness amid the traffic of a London thoroughfare than among the hooves of his accustomed bronchos. The shouts and bustlings of the stockade are peaceful sounds to him compared with the hooting and grinding of the City's overwhelming traffic.

To the multitude in the Wembley Stadium Vandermeer the rough-rider is the hero, whereas Vandermeer the sight-seer, dodging the London General Omnibus Company's innumerable juggernauts, is the man, who is braving strange perilous adventures. Bravery is displayed in the Rodeo, but only by the adventurous spirits of Clapham and Purley, who allow themselves to be placed on the wildest of buckers, with the certainty of quickly joining the procession of stretchers, which carry away their predecessors.

Bravery, real bravery, consists in attempting the unaccustomed. For us, we freely admit it, riding on the giant racer was an act of the greatest heroism. With full knowledge of what that ride entailed and a proved physical repulsion to sudden sinking sensations and great speed, it required the greatest resolution to undergo that terrifying experience. On leaving the car we were white and shaken, but proceeded straight to the Grand National Switchback, on which we felt sufficiently secure to sit with our arms folded while going uphill. The third switchback we almost enjoyed and we feel as certain as is humanly possible that if we endured a few more rides on any one of these jolly devices, we should feel as little terror of them as we do of the underground railway. Familiarity would breed contempt, or what is popularly known as bravery. We have not yet had the courage to look round at the brakemen while going downhill, but understand that they wear expressions of infinite boredom and have great difficulty in keeping awake.

Another recent event, which illustrates our point, is the realistic representation of the Guatemala Falls, which is having a long run in the College this summer. The first performance was given at 2 a.m. one morning of last week. Heralded by a sudden and furious bubbling, the waters fell from the boiler in

the College roof, lashing themselves into a foaming fury against the stone steps and forming steaming and eddying pools around the doors of the bath-rooms and the Pavy gymnasium. The unaccustomed sounds quickly brought a group of spectators to the scene, a group that for a few moments remained inactive. Whether it was the unusual experience of awaking to find such imposing falls at one's bed-room door or whether it was that the water was boiling is uncertain, but the small group of students stood for a moment, spell-bound and inactive. And then, as if fired by a common impulse, they one and all displayed that disregard of self and anxiety for the common good that are at the bottom of all true heroism. One ran to the boiler-room and looked at the boiler, another ran to the bath-rooms and looked at the baths; others ran round the corridors and looked at each other, while the excitement, like the flood in the basement, mounted higher and higher. Each man was ready to do anything, if only he knew what to do and many hearts beat fast, while waiting for the explosion. There was no explosion and as, when the specialist from the Work's Department arrived, the water had ceased to run, the small band of heros returned to bed, wrapping their bravery round them like so many cloaks.

Hear now the sequel. Last night we awoke to the sound of a mighty rushing of waters. Scrambling from our bed we hurried out. The representation of the Guatemala Falls was more realistic than ever. Leaping through the steaming torrent we burst unceremoniously into the nearest bed-room and said to the startled house-physician, "The flood; quickly; the flood." In a moment he was at the door, fear and fortitude struggling for possession of him. He glanced wildly at the rushing torrent and then—laconically remarking, "Oh that; I've seen that," went back to bed. He had grown used to the boiling stream pouring past his bedroom door and slept soundly with the courage born of contempt. In this case it does really seem as though some further innovation is necessary if interest in the midnight phenonemon is to be maintained. Whether a battleship with miniature cannon starting from the top, or salmon leaping from the bottom would hold the College imagination for more than one or two performances remains to be seen.

▭

THE season of games is now in full swing. Our cricket team—for we know there is a cricket team, however modestly it hides its doings from the public eye—our cricket team has played its way into the final in the Inter-Hospital Cup Competition; the Tennis six are almost within reach of the Inter-Hospital Tennis Cup, and the Swimming Club, as is their custom, have returned from the Bath Club with their arms full of cups. Gradually the silver cupboard in the College smoking-room is filling up—a sure sign of the general good health of the present Guy's men. As long as the silver cupboard is full of Challenge Cups, so long will the examination pass lists be full of the names of Guy's candidates. To work well one must play well, and the Council of the Club's Union is full of anxiety for its members to excel in both. Their slogan to the members is "Play the Game"—but if you happen to be in the College be sure that it is only a game of draughts or dominos, according to their latest published bye-law.

▭

WE have never made a serious study of internal economy, although we have always been able to admire it when found in its most perfect form. On board ship, we are told, the most perfect utilisation of available space is to be found, though some little idiosyncrasy of our semi-circular canals has always induced us to keep our appreciative glances for the deck-rail and the steward. But next to the ship the hospital must rank high for completeness of organisation. Everything is to be found just where it is wanted. Do not take our word for it. Ask those, who know. Ask any dresser about the ward-dressings; ask senior surgeons about the operating instruments. The art of having everything where it is most useful and can be brought into use with the greatest expedition has been brought through a long process of trial by error to a perfection that claims our unbounded admiration. And that being so, we are surprised to see outside the Bermondsey and Rotherhithe War Memorial Ward a dust-bin, on which is inscribed the single word "BABY." It would surely be more suitable to place it outside the Externs' door in the College. The brown paper parcels on the window-ledge do look so untidy.

THE TREASURER'S PRIZE ESSAY.

Some Observations on Acidosis.

BY NORMAN BURGESS.

THE term acidosis, at one time used to denote the presence in the urine of acetone, aceto-acetic acid and β. hydroxybutyric acid, has now come to have a much wider meaning, although certain of the older clinicians still use it in its more limited sense. We now employ it to denote a variation in the acid-base equilibrium of the blood, in which the alkaline reserve is diminished, and realise that this may be due to many causes besides the presence in the circulation of those specific acids mentioned; moreover acidosis does not imply that the reaction of the blood is changed by the acids present, since the alkaline-reserve acts as a "buffer"; it is only when the alkaline reserve is almost entirely used up, that change in reaction—acidæmia—occurs, and only a very slight change in the PH of the blood is compatible with life. We may say, therefore, that we have ceased to concentrate our attention on the acid, and have come to regard as more important the diminution in the buffer which takes place as a result of the body's effort to maintain the reaction of the blood at a constant value, when acid is being continuously produced and thrown into the circulation.

The studies of acidosis with which this paper deals are concerned, in the first instance, with the effect of insulin on the acidosis of diabetes mellitus. This acidosis we know to be due to certain specific acids—aceto-acetic and β. hydroxybutyric—and we therefore distinguish it by the name of ketosis. The investigations carried out comprised, in two cases, the quantitative estimation of the ketone bodies excreted daily in the urine—the end result of the condition—over a considerable period, together with the ammonia-nitrogen ratio of the urine, and in certain other cases the simultaneous estimation of the ketone bodies in the blood and urine, and the ammonia-nitrogen ratio of the latter. In the second place, the investigations which demonstrated the presence of an acidosis in acute rickets will be described, and the nature of this acidosis discussed.

The Ketosis of Diabetes Mellitus.—As has already been said, it has long been recognised that as a result of diabetes or of carbohydrate deprivation, aceto-acetic and β. hydroxybutyric acids, and acetone appear in the urine. This was shown by the work of Knoop, Baer, Blum and Dakin to be due to a breakdown in the later stages of fatty acid metabolism, whereby aceto-acetic and β. hydroxybutyric acids, normal intermediate products in the katabolism of the fatty acids, instead of being oxidised to carbon dioxide and water, are, under these conditions, passed into the circulation and excreted. Acetone is not a normal product of fat metabolism, but is formed from these acids, in the urine, after excretion, and also in the tissues.

In 1904 Geelmuyden suggested that normally carbohydrate combines with the ketone bodies to form complex substances which can then undergo oxidisation. This idea was devoloped by Woodyat, who in 1910, put forward a theory unbacked by evidence, that "antiketogenesis is an effect due to certain products which occur in the oxidation of glocuse; an interaction between these products, on the one hand, and one or more of the acetone bodies, on the other." He considered the effect to be due to a reciprocal reduction of aceto-acetic acid by the simultaneous oxidation of the antiketogenic substance. The same author, in a later paper, (1916) emphasised the view that the cause of the formation of the ketone bodies is the same in the non-diabetic as in the diabetic, namely, absent or deficient carbohydrate metabolism.

This view, however, was not allowed to go unchallenged by Joslin, who stated that ketonuria in the diabetic and the non-diabetic is different, instancing in support of his contention, the reduction in ketosis in diabetics by starvation.

The effect of starvation in reducing ketosis in the diabetic was satisfactorily explained by Graham and Poulton, who showed that ketosis is proportional to the total metabolism; in the diabetic the total metabolism is high, much fat being abnormally metabolised and much aceto-

acetic acid being formed; this is reduced by starvation, the diabetic becoming, for the time, like a healthy fasting man, with some, but not much, abnormal fat metabolism. Joslin's objection is therefore removed. In 1921 Shaffer brought forward experimental evidence in favour of Woodyat's hypothesis, for he was able to show that the oxidation of glucose by hydrogen peroxide, *in vitro*, causes the disappearance of aceto-acetic acid if present in the solution. Fructose and glycerol were found to behave like glucose, but lactic acid had no such ketolytic action. He found that the rate of disappearance of the aceto-acetic acid was accelerated by alkalinity, temperature, and the amount of ketolytic substance present. He concluded that the rate of ketolysis was proportional to the rate of conversion of glucose by alkali into an oxidisable derivative, and that some intermediate oxidation product of glucose combines with aceto-acetic acid to form a compound which can then be further oxidised.

Shaffer then set out to answer the following question: "Is there a definite and constant mixture of food-stuffs corresponding to definite molecular proportions of the precursors of the acetone bodies, on the one hand, and of glucose or related substances, on the other, which just suffices to avoid the appearance of acetone bodies, in different subjects?"

In this paper he set out to calculate the total molecular amounts of ketogenic and antiketogenic substances in those diets, the metabolism of which just causes the definite appearance of small quantities of acetone bodies. As a result of his investigations he concluded that the hypothesis that antiketogenesis is due to a chemical reaction in the body between definite and constant amounts of ketogenic and antiketogenic compounds, analogous to the ketolytic action of these compounds in vitro, is correct, when, by the calculation of the molecular amounts of ketogenic and antiketogenic substances derived from protein, carbohydrate and fat, this hypothesis was applied to people with mild ketosis. He found that the minimum molecular ratio of ketogenic : antiketogenic substance to avoid ketonuria is 1 : 1. He also concluded from his calculations that no difference is to be expected in the behaviour of different human subjects, whether diabetic or normal, as regards acetone body formation, except as accounted for by excess of ketogenic over antiketogenic molecules in the mixture being katabolised.

In 1922, Wilder and Winter, as the result of experimenting with diets of varying composition, concluded that one molecule of glucose is ketolytic for two molecules of aceto-acetic acid and that in planning a diabetic diet one should only allow mixtures which avoid the 2 : 1 ratio by a safe margin.

Let us now proceed to examine the effect of insulin on ketosis in some cases of diabetes mellitus :—

CASE I.—Male, 17½ years of age. The disease had begun in March, 1921, and he had been treated by dieting in May, 1921. To this treatment he had responded well, no sugar being passed on a sufficient diet. He was re-admitted to Guy's in July, 1922, he had been eating porridge for three months. There was much ketosis and much sugar in the urine. He became sugar-free with fasting, but sugar returned on a diet of vegetables, protein and fat. He was re-admitted under Dr. Poulton in March, 1923, for insulin treatment.

When admitted he was on a diet of vegetable, protein and fat (V.P.F.), together with 2oz. of bread. During three days there was an average daily excretion of 8·22 gms. of acetone. This was followed by a three day fast during which the average daily excretion was 8·28gms. A diet of V.P.F. was then given, having a calorie value of 1540 cals. and containing 15gms. carbohydrate. On this diet the excretion of ketone bodies varied between 12·6 and 26·01 gms. acetone, when no insulin was being given.

This diet was continued throughout the greater part of the investigation.

Twenty-four units of insulin were now given daily for a period of seven days. During this period the the daily excretion was in the neighbourhood of 3gms. The insulin was then discontinued for seven days; the daily excretion now varied between 7·34 gms and 17·88gms.

After this insulin was given in doses varying from 20—36 units a day, the ketone excretion varying from 14·45 to 8·0gms. per diem. The dose of insulin was then increased to 40 units per diem, during which time the excretion varied from 2·63 to 11·78 gms., the average daily excretion for the period being 6·9gms. When a dose of 40 units was combined with a fast day, ketone bodies disappeared from the urine. After this the dose of insulin was increased first to 60 units per diem and eventually to 75 units, the calorie value of the diet being increased up to 2030. The patient never passed more than a slight trace of ketone bodies on 60 units a day, while there was a complete absence of ketone bodies on 75 units *per diem*. (*See Table I. and Fig. I.*)

In this case the ammonia-nitrogen ratio tended to run parallel with the acid secretion. (See Fig. Ia.)

CASE II.—Male, aged 9 years. Disease began acutely in January, 1922. In this case the effect of 10 units of insulin on the ketonuria was studied on the first day of treatment. The urine collected for the 12 hours prior to the administration of the insulin contained 10·1gms. acetone; that collected for the 12 hours immediately following the insulin contained 1·6gms.

TABLE I. (CASE I.)

Insulin units per diem.	Urine per diem. Total Ketones gms.	Urine per diem. $\frac{NH_3}{N_2}$ ratio %	Diet per diem.	Cals.	Pro ein gms.	Carbo.-hydrate gms.
0	8·22	12·3	V.P.F. + 2 oz. bread	1660	69	15
"	7·58	12·1	Fast	—	—	—
"	8·54	20·0	"	—	—	—
"	8·73	16·4	"	—	—	—
"	12·6	12·3	V.P.F.	1540	81	15
"	11·28	9·2	"	"	"	"
"	20·31	9·0	"	"	"	"
"	26·01	—	"	"	"	"
24	3·85	—	"	"	"	"
"	10·04	6·4	"	"	"	"
"	3·01	8·1	"	"	"	"
"	3·96	12·7	"	"	"	"
"	1·3	—	"	"	"	"
"	2·73	6·7	"	"	"	"
"	3·22	—	"	"	"	"
0	17·88	8·15	"	"	"	"
"	11·5	13·4	"	"	"	"
"	9·05	12·4	"	"	"	"
"	14·25	16·0	"	"	"	"
"	7·34	13·4	"	"	"	"
"	17·8	13·0	"	"	"	"
"	9·75	8·5	"	"	"	"
28	14·45	9·8	"	"	"	"
30	11·05	10·4	"	"	"	"
32	8·25	8·4	"	"	"	"
36	8·5	6·9	"	"	"	"
36	8·0	6·3	"	"	"	"
40	9·97	9·0	"	"	"	"
"	3·85	7·7	"	"	"	"
"	2·63	11·1	"	"	"	"
"	11·78	6·4	"	"	"	"
"	6·3	13·4	"	"	"	"
"	Nil.	—	Fast	—	—	—
60	0·2	4·4	V.P.F.	935	62	19
60	Nil	—	"	2030	93	21

FIG I (CASE I)

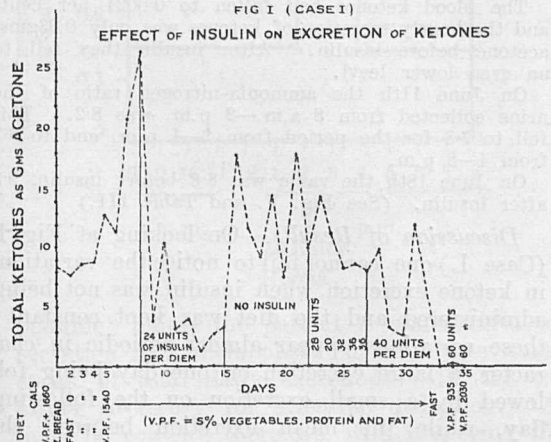


FIG Ia (CASE I)

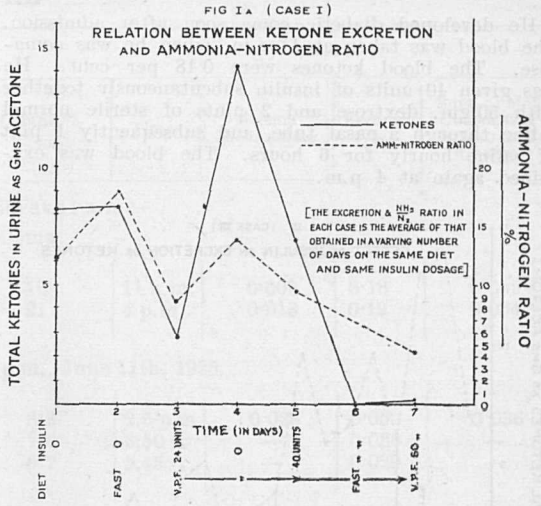


TABLE II. (CASE III).

Date. 1923.	Insulin. Units per diem.	Urine per diem. Total Ketones gms.	Urine per diem. $\frac{NH_3}{N_2}$ ratio %	Diet
April 29th	0	7·22	33	Fasting
" 30th	"	13·92	13·7	V.P.F.
May 2nd				
8a.m.-12noon	10 units at noon	4·1	21	"
12–3 p.m.		1·32 (=13·01)	27	"
3–6 p.m.		0·96	25	"
6–8 p.m.		6·93	22	"
May 3rd	30	6·2	22	"
" 4th	"	9·6	24·5	"
" 5th	"	6·6	18	"
" 6th	"	5·8	28	"
" 7th	"	9·7	25	"
" 8th	"	3·8	—	"
" 9th	40	3·1	18	"
" 10th	"	1·98	16·5	"
" 11th	"	5·18	18	"
" 12th	"	4·45	14	"
" 13th	"	1·02	11·5	"
" 14th	"	3·75	16·4	"
" 15th	"	2·2	10·3	"
" 16th	"	1·4	11	"
" 17th	"	Nil	—	"

CASE III.—Female, aged 29, whose disease began in August, 1922. Table II. and Fig. II. show the effect of insulin on the daily excretion of ketones over a period of 18 days. Fig. III. shews the effect of the first dose of insulin (10 units) on the hourly excretion of ketones and the ammonia-nitrogen ratio, over a period of 12 hours.

CASE IV.—Male, aged 38 years, admitted on May 27th, 1923, for pneumonia and pleurisy. He had been treated by Dr. Poulton in January, 1923, for diabetes by fasting and dietetic measures, but continued to pass sugar in the urine with a blood sugar of 0·33 per cent.

He developed diabetic coma soon after admission. The blood was taken at 11 a.m. when he was comatose. The blood ketones were 0·18 per cent. He was given 40 units of insulin subcutaneously together with 50 gm. dextrose and 2 pints of sterile normal saline through a nasal tube, and subsequently 1 pint of saline hourly for 6 hours. The blood was examined again at 4 p.m.

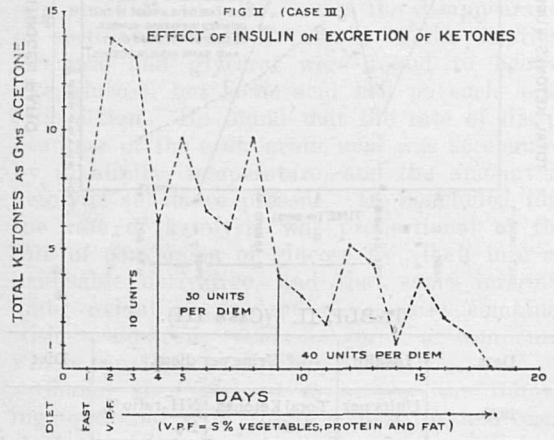
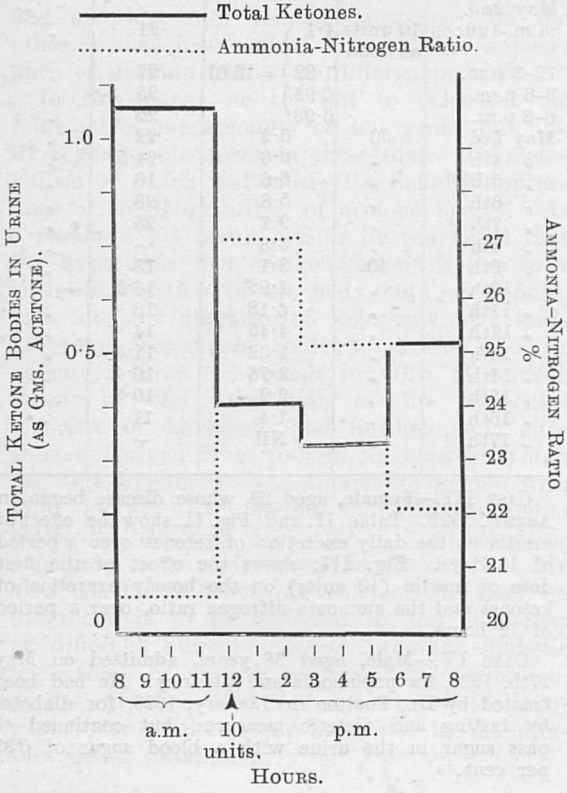
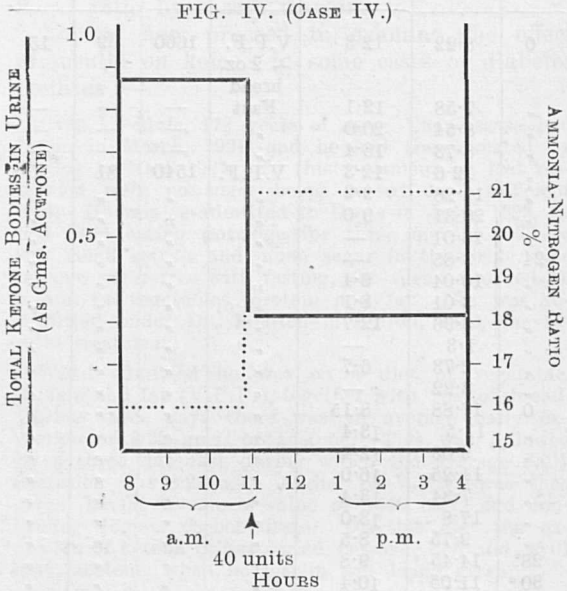


FIG. III. (CASE III.)



The blood ketones had diminished to 0·12 per cent. There was an associated fall in the amount of ketones excreted in the urine. The ammonia-nitrogen ratio rose from 16 before insulin to 21 afterwards. (The plasma-bicarbonate rose from 0·008 at 11 a.m. to 0·013 at 4 p.m.) See Fig. IV. and Table III.

FIG. IV. (CASE IV.)



CASE V.—Male, aged 29 years, who had had symptoms of diabetes for nine months. On June 11th, 1923, 10 units of insulin were given at 2.10 p.m. The blood ketones at 2 p.m. were 0·05 per cent. (Plasma-bicarbonate 0·028) at 3.50 p.m. the blood ketones had fallen to 0·038 per cent., while at 5.45 p.m. the value was 0·029 per cent. The excretion of ketones in the urine fell parallel to the blood ketones with the exception of the period from 2—4 p.m. The patient was given 10 units a day from June 11th and a week later the analyses of blood and urine before and after insulin were repeated.

The blood ketones had fallen to 0·0024 per cent. and the hourly secretion of ketones was only 0·03gms. acetone before insulin. After insulin they fell to an even lower leevl.

On June 11th the ammonia-nitrogen ratio of the urine collected from 8 a.m.—2 p.m. was 8·2. This fell to 7·8 for the period from 2—4 p.m. and to 6·7 from 4—8 p.m.

On June 18th the value was 8·8 before insulin, 9·3 after insulin. (See Fig. V. and Table III.)

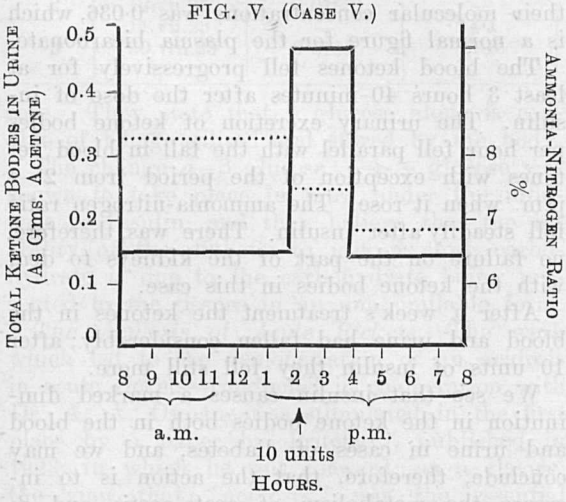
Discussion of Results.—On looking at Fig. I. (Case I.) one cannot fail to notice the variations in ketone excretion when insulin was not being administered and the diet was kept constant; these variations appear almost periodic in character, a large excretion on one day being followed by a small excretion on the following day, while the mean excretion between the high and low days remained about the same.

TABLE III.

	Urine.				Blood.			
Time.	Vol. c.c.	Ketones %	Ketones gms. per hr.	$\frac{NH_3}{N_2}$ ratio %	Time.	Plasma Bicarbonate	Ketones %	Sum. of Mol. Concens. of Bicarb. and Ketones.
Case IV. 40 units at 11 a.m. Diabetic Coma.								
8 a.m.—11 a.m.	636	0·41	0·87	16	11 a.m.	0·008	0·18	0·039
11 a.m.—4 p.m.	536	0·26	0·28	21	4 p.m.	0·013	0·12	0·034
Case V. 10 units at 2.10 p.m., June 11th, 1923.								
8 a.m.—2 p.m.	240	0·38	0·15	8·2	2.5 p.m.	0·028	0·05	0·036
2—4 p.m.	185	0·5	0·46	7·8	3.50 „	—	0·038	—
4—8 p.m.	180	0·29	0·13	6·7	5.45 „	—	0·029	—
10 units at 12.10 p.m., June 18th, 1923.								
8 a.m.—12.30 p.m.	354	0·037	0·03	8·8	12 noon	0·023	0·0024	—
12.30—4.30 p.m.	340	0·0014	0·001	9·3	4 p.m.	0·026	0·0008	—

Attractive as it would be to speculate as to an underlying cause for this apparent periodic variation, the conditions under which the total urine for twenty-four hours has to be collected in the general wards of a hospital make it impossible; unless the patient is under rigid observation in a metabolism chamber, one cannot speak of total daily excretions with the certainty necessary for scientific deduction. One must be content, therefore, with observing that the appearance of the chart is suggestive and that this is a point to be worked out more thoroughly should the opportunity arise. The effect of insulin in producing a diminution in ketone excretion is well shown in the cases we are considering here. In Cases I. and III. one notices in Figs. I. and II. that when insulin is being given, there is, superimposed upon the daily variations mentioned above, a gradual fall in the total quantities excreted, comparable with the "fall by lysis" seen in some temperature charts. Fig. Ia. shows the average daily excretion of ketone bodies and the average ammonia-nitrogen ratio, in Case I. for varying periods when insulin was not being given and when various doses were being administered. The daily variations are thus removed and the effect of insulin on the mean excretion is seen more clearly.

FIG. V. (Case V.)



The rapid and marked effect of insulin in reducing ketosis is well seen in Case II. (*vide supra*).

Fig. III. shows the effect of a single dose (10 units) of insulin on the hourly excretion of ketones together with the ammonia-nitrogen ratio.

The total quantity of urine passed from 8 a.m.—12 noon, 12 noon—3 p.m., 3 p.m.—6 p.m., and 6 p.m.—8 p.m. was collected separately, and the total ketone bodies and the

ammonia-nitrogen ratio in each sample was estimated. 10 units of insulin were given at 12 noon.

It will be seen on referring to the Fig. mentioned that the hourly excretion of ketones from 8 a.m.—12 noon was 1.03gms. This fell progressively to 0·44gms. per hour from 12 noon —3 p.m., and 0.32 from 3—6 p.m. As the effect of the insulin began to wear off, the excretion rose to 0·48gm. per hour from 6—8 p.m. (Sugar had been absent from the urine from 12 noon—6 p.m., but re-appeared in the urine passed between 6 and 8 p.m.) The ammonia-nitrogen ratio rose slightly after the insulin because there was a slightly bigger relative fall in the output of total nitrogen than of the ammonia. It subsequently fell, but did not reach quite so low a value as before the insulin..

We have now to consider the effect of insulin in Cases IV. and V. in which the investigations were carried a step further, the ketones in the blood and urine being estimated simultaneously.

Case IV., as has been stated above, was comatose when the investigations were carried out.

Table III. gives the results obtained, while Fig. IV. shows graphically the relation between the hourly excretion of ketones and the aammonia-nitrogen ratio.

The ammonia-nitrogen ratio was low—16—considering the marked ketosis, and it rose to 21 rather than fell when the ketosis diminished. (The plasma bicarbonate was extremely low when the blood was examined prior to the administration of insulin.)

As the bladder was not emptied by catheter at 8 a.m., the urine collected from 8 a.m.—11 a.m. was probably secreted over a longer period than this, and on this account the figure 0.87gm. acetone per hour, given as the —hourly excretion of ketone bodies, is probably too high. It will be seen on referring to Table III. that both the hourly excretion and the percentage of ketone bodies in the urine were greatly diminished after insulin. We may therefore conclude that the fall in blood ketones was due to increased destruction (or diminished formation) of these acids in the body, and not merely to increased excretion. Indeed, we must consider the small output of ketone bodies, when the blood ketones were so high at 4 p.m., as evidence of the failure of the kidneys adequately to deal with the situation.

This failure of excretion was due to the loss of metallic bases from the body, as the following evidence will show. In severe cases the diminution in the plasma bicarbonate is usually thought to compensate for the increase in ketone bodies. Were this the case the sum of the molecular concentrations of the plasma bicarbonate and the blood ketones should be constant. In this case this was not quite correct; before treatment the value was 0·039, while five hours after insulin the value was 0.034, that is, the plasma bicarbonate did not rise as much as one would suppose, considering the fall in blood ketones. Again, the ammonia-nitrogen ratio rose from 16 to 21, as has already been stated, after insulin, which would lead one to imagine that ammonia was produced to aid the excretion, on account of the deficiency of metallic bases. This indicates clearly that sodium bicarbonate and other metallic bases should be given early in the treatment of diabetic coma, and that it is not safe merely to stop the production of ketone bodies by means of insulin and dextrose.

With regard to Case V. (Table III., Fig. V.) we may say that before treatment was begun on June 11th the diminution of the plasma-bocarbonate was equivalent to the quantity of ketone bodies in the blood, since the sum of their molecular concentrations was 0·036, which is a normal figure for the plasma bicarbonate.

The blood ketones fell progressively for at least 3 hours 40 minutes after the dose of insulin. The urinary excretion of ketone bodies per hour fell parallel with the fall in blood ketones with exception of the period from 2—4 p.m. when it rose. The ammonia-nitrogen ratio fell steadily after insulin. There was, therefore, no failure on the part of the kidneys to deal with the ketone bodies in this case.

After a week's treatment the ketones in the blood and urine had fallen considerably; after 10 units of insulin they fell still more.

We see that insulin causes a marked diminution in the ketone bodies both in the blood and urine in cases of diabetes, and we may conclude, therefore, that the action is to increase the metabolism of aceto-acetic and β. hydroxybutyric acids (or to prevent their formation), not merely to increase their excretion.

The changes in the ammonia-nitrogen ratio must depend on more than one factor; it seems likely from these observations that the func-

tional activity of the kidney and the state of the alkaline-reserve of the body both play a part in its regulation, and the effect of insulin in any given case will depend on which factor is more prominent.

These results tend to support the views of Shaffer, Geelmuyden, Woodyat, and Wilder, which were quoted at the beginning of this paper, since it has definitely been proved that insulin enables the diabetic to utilise and store carbohydrate, and also increases the metabolism of the ketone bodies. The precise way in which insulin enables the diabetic to deal with carbohydrate is not as yet definitely known, but the work of Winter and Smith sheds some light on the problem. These workers found that the blood-sugar of the diabetic has a different polarimetric value from that of normal individuals. Moreover they found that in the complete diabetic the blood-sugar is a—β glucose, while the blood of a normal individual contains a mixture of a—β glucose and γ glucose. They state that γ glucose alone is capable of being utilised and stored by the body.

The change a—β glucose $\longrightarrow$ γ glucose was shown to take place in vitro under the influence of insulin, and they believe that the inability of the diabetic to use or store carbohydrate is due to the carbohydrate being presented to the tissues in an unassimilable form.

The Acidosis of Acute Rickets.—The work which led to the demonstration of an acidosis in acute rickets—conducted in co operation with Dr. A. A. Osman—was stimulated in the first place by a paper by Pritchard, published in 1923, in which he put forward, as a theory, the view that "acidosis" was the essential ætiological factor in the production of rickets, using the term "acidosis" apparently in the old sense of the word, since the evidence which he brought forward in support of his theory depended on the detection of ketone bodies in the urine in some cases of acute rickets, together with a marked increase in the ammonia-nitrogen ratio of the urine and alterations in the calcium and phosphorus content of the blood and excreta. Such evidence seeming to us to be insufficient to justify such far-reaching conclusions, we decided to estimate the plasma-bicarbonate in certain cases of acute rickets then in the hospital. We also examined the urine and blood for ketone bodies and estimated the ammonia-nitrogen ratio of the urine; in one case the fat content of the fæces was estimated.

Results.—In the three cases investigated at this time there was found to be a marked diminution in the alkaline-reserve of the blood in each case, as compared with a series of normal children in whom the plasma-bicarbonate showed a figure of 0.0313 molecular concentration.

In Case I. there was a small quantity of ketone bodies present on the first two days of investigation. They then disappeared from the urine and were never subsequently discovered either in the blood or urine, although after 11 days the plasma-bicarbonate was still lower than on the first day.

In Cases II. and III. ketone bodies were never found either in the urine or blood.

In all three cases the ammonia-nitrogen ratio was considerably increased, the average value being more than twice that found in a series of normal children (7·04).

These results are expressed below in tabular form (see Table IV.)—

TABLE IV.

Case.	Date.	Na HCO_3 Mol. Concen.	$\frac{NH_3}{N_2}$ ratio %	Acetone in Urine. Mol. Concen.	Fe Cl	Legal.	Rothera.
1	12.vii.23	0·0174	14·1	0·0096	— ve	+ +	+ +
	13.vii.23	—	13·8	—	— ve	+ +	+ +
	16.vii.23	—	11·9	Nil	— ve	— ve	— ve
	23.vii.23	0·0166	—	"	— ve	— ve	— ve
2	12.vii.23	0·0190	—	"	— ve	— ve	— ve
	14.vii.23	—	14·1	"	— ve	— ve	— ve
3	30.viii.23	0·0183	17·6	"	— ve	— ve	— ve

Since it seemed obvious from the above results that the ketone bodies play no part in this acidosis, we were led to the conclusion that the acidosis is due to one or both of the following factors:—

(i.) Loss of bases by some other channel, e.g., fæces.

(ii.) Some other acid circulating in the blood.

With regard to the loss of bases by the

bowel, Dodds had recorded a high fat content in the fæces of children suffering from acute rickets, and concluded that there is a pancreatic disorder in rickets. Braithwaite, however, was unable to confirm this work and pointed out that Dodds had not defined the term acute rickets (some of his cases were above the age at which acute rickets is usually found), nor had he stated whether they were having cod-liver-oil as part of their treatment.

We determined the fat in the fæces of Case III.; it was found to be 17.5 per cent., a low normal figure. Dr. Ryffel reported on the fæces of Case I. that there was "no appreciable excess of fat."

Since the publication of the above cases we have obtained confirmatory evidence from other cases, there being in all a marked diminution in the plasma bicarbonate, absence of ketones (except a small trace on one day in one case), increased ammonia-nitrogen ratio, and normal fat content of the stools. None of these cases was having any treatment while under investigation. We investigated one of the above cases after a short period of treatment by the mercury vapour lamp; the plasma bicarbonate had reached a normal figure.

With regard to the second possible cause of the acidosis, namely, some other acid or acids circulating in the blood, this is at present a matter of pure conjecture and provides a possible line for future research.

An Analysis of the Government Booklet on Insulin.

WE must all be agreed in approving the circulation by the Health Department of such pamphlets, and it seems hardly the thing to "look a gift horse in the mouth." Still, it is no use reading the book if one does not form an opinion.

What use is claimed for Insulin?

(i) It will tide over an emergency, coma, etc. But there is not a suggestion as to how it does this. And glucose has to be given at the same time (pp. 22 and 24). Now coma, etc., should not be allowed to develop; and if it does, glucose, *per se,* is sufficient treatment, since these symptoms are caused by a deficiency of glucose in the blood; as is admitted (p. 17). Whereas insulin clears glucose out of the system (p. 6) and would presumably therefore make the coma worse. But glucose is given too, and probably it is the active agent.

(ii) Again, we are told (p. 25) that "usually" it improves CH tolerance; and this presumably means that CH is used up in a normal fashion (p. 24). But if it only does this while being taken, and has no permanent curative effect, it is not much.

For one must carefully notice that there is considerable danger in the use of insulin (pp. 25 and 26).

Beyond this new danger, what new facts does this book contain. The term ketosis is new to me, and is made as confusing as possible by also using the old term acidosis, which is synonymous, so far as I can make out.

Now, what use is insulin likely to be? Are we not rather tired of animal extracts? Has not this particular extract been tried years ago, and given up (Osler, p. 438, etc.)?

Do we not know the effect of giving an extract of, for instance, the gastric glands? Have we not all seen children whose digestion has been ruined in this way? Does not the administration of pepsin tend to stop the natural secretion? And if one habitually drinks with meals, does not the salivary secretion tend to fail. How then can we expect that the ferment of the pancreas will be stimulated by the use of it?

The effect on depancreatised dogs is not to the point at all, if only for the fact (p. 24) that in the one case CH collects in the liver and in the other it is absent.

Are not these gland extracts on the wrong principle, rather like giving a man with a wasted leg a crutch to avoid further use of the leg. Instead of stirring up Nature to his assistance and recreating the feeble muscle.

No, it seems to me that all the benefits talked of in this booklet are to be obtained by the diet and the glucose which are there advocated.

E. S. DUKES.

Pass List.

University of London.

Third (M.B., B.S.) Examination.

May, 1924.

Group I.

A. T. W. Powell. H. J. W. J. Westlake, B.Sc.

Group II.

D. H. Berry. E. C. Seward.
R. D. Gross. G. M. Stoker.
C. Ive. H. C. C. Taylor.
R. L. Portway.

Pass.

K. N. Purkis.

Royal College of Surgeons.

F.R.C.S.

Final Examination.

R. C. B. Ledlie. V. L. Parmar.
E. F. Wilson. G. H. Pfeiffer.
J. M. Craig.

Society of Apothecaries of London.

June, 1924.

Surgery—F. James.

Medicine—H. T. Chiswell.

The above have now completed the examination.

The Light Side of a M.O.'s Life in the Army.

By FRANCIS HEATHERLEY, F.R.C.S.

(*Continued*).

Times have sadly changed since the days of good King Hal when the soldier's daily beer ration was one gallon and Wolsey had to fuss round after the returned empties. No wonder that Henry the Eighth was as popular with the soldiers as he was with the ladies, but how dangerous the presence of teetotallers in the ranks must have proved in those days.

But to return to the Sanitary Squad. If you scheme out a proper roster of duties for each man and see that 25 per cent. of them get leave every week-end you will soon find means of getting a good squad together. What many M.O.'s fail to grasp is that these men are intended to act as sanitary police and you will increase the dignity and attractions offered by providing each man with a brassard in the regimental colours, the expense I fear will be yours, but it is worth it. Now as the authorities refer to them both as regimental military police and overpage as sanitary military police you will be wise to choose the letters S.M.P. The alternative of R.M.P. will probably lead to the Adjutant borrowing the brassards for his own purposes.

If you should have any difficulty with your C.O. over this let me know and I will give you chapter and verse.

Then another way of improving the status of the office is, as far as possible, to make your men foremen and to arrange with the Regimental Sergeant Major to provide you with enough defaulters to do the actual manual labour of digging latrines and scavenging. If you keep them busy he will do all he can to help you for nothing has a greater deterrent effect on a defaulter with a weak alcoholic stomach than giving him plenty of latrine work to do in hot weather.

But be careful not to grant one of your men week-end leave unless he brings you a substitute of whom you approve and be careful to take his name or else you may have to whistle for him.

Remember also that it is a good thing to get the reputation of being one who gets things done, even occasionally in spite of a tangle of red tape, this is practically the only use for the sword.

The classical example of course is that of one of the French revolutionary armies which found itself held up in a large city owing to the men being on their uppers. On reporting to Paris, the Committee of Safety replied that they had no boots and very little money which they were forwarding and they directed that the country was to be scoured for boot-makers and leather. As it was reckoned that the boots would under these conditions take about six months to materialise the army was in despair and not impressed when the authorities on being appealed to afresh sent them instead of boots a new general to take over command. But this was a little man of the name of Buonaparte, who later established a reputation for getting things done. He issued orders that the inhabitants were not to stir from their houses next day until leave was given. Then he sat up dividing the city into districts and then next day a cart and escort appeared in each street and a house to house call was made and all suitable boots were put into the carts and two days later the army was marching against the Austrians.

Coming down to modern times I remember two Quartermasters of adjoining battalions, the one never had enough coal to enable us to give the men hot baths at the hospital. His explanation being that an economical government insisted on a summer allowance being antedated to early spring.

The other Quartermaster always had plenty of coal and seemed ignorant of any regulations.

When diplomatically investigated the explanation was beautiful in its simplicity. The one took what was sent him the other went down to the railway siding and took what he wanted, or if watched and there was a difference in the size of the sacks, which often happens in times of stress, his men were never afraid to tackle the large ones when he was behind them.

The grumpy old Quartermaster whom I de-

prived of his stretcher bed was the former class and could only be prevailed upon with difficulty to part with what was wanted for the men.

Now my inspection tent was in an exposed situation and had to be opened so widely in order to allow of the men filing in to be inoculated after they had been painted with iodine outside that it was very difficult to keep the spirit lamp burning which boiled the water in which the needles had to be sterilised.

I twice indented on him for five yards of canvas and stakes with which to erect a wind-screen, but he replied that he had none.

A few days later, whilst wandering round the camp hunting for nuisances in odd corners I came across a heap of things for which he had apparently no room in his store tent and which had been piled out of sight behind the marquee. Amongst the lot was a tidy bundle of canvas reinforced with stakes. So later on in the morning I sought an interview with him amid all his wealth, taking my corporal with me. On his again saying that, as I could see for myself, he had no canvas I kept him in conversation whilst my corporal slipped out and beckoning to one of our men carried the bundle away.

It was not till long afterwards that he traced the stuff. By this time the windscreen was too weatherworn to be worth retrieving and of course my corporal remembered hearing the Quartermaster disown proprietorship.

At the same time I found that there were many ear cases in this unit requiring attention in which I was much handicapped by having no better light than that afforded by a hurricane lamp.

Now in my wanderings I found that although in the Officers' Mess we only had hurricane lamps, yet the Sergeants' Mess could boast of two capital 50 candle power lamps.

About this time one of our best sergeants consulted me because he had heard of a miraculous cure I had effected in a man previously stone deaf.

It is remarkable how cheaply fame may be won through syringing wax out of a man's ears.

I gladly undertook the sergeant's case and explaining how I was handicapped he quite naturally offered the loan of a lamp out of his Mess for that evening.

Of course that evening I took him first of the six men awaiting examination and naturally he said he would look in later on for the lamp.

Quite naturally he forgot, but two days later on meeting me suggested that he would send a man up for it, but as I pointed out it was hardly worth while as he was coming to me the next evening.

I dare say I should have succeeded in weaning the Sergeants' Mess of this lamp, for even with one they were better lighted than the Officers' Mess, but that my man carelessly disregarded my advice to put the lamp where it could neither be kicked over or seen and so it happened that the Brigade Sergeant-Major, who rather cultivated my society, dropped in one showery afternoon for a smoke and chat and after sitting opposite to it for ten minutes finally saw in it the missing lamp and declining my offer to send it down borrowed one of my men to carry it off there and then.

It is a good thing to be on good terms with the President of the Regimental Institutes because if you can get him interested in any of your schemes it is quite possible that he may make you a grant in aid.

The deaf sergeant's case was interesting, but not hopeful. He had pretty well lost his hearing through the explosion of a shell which just missed him in the Boer War, but it gave me the opportunity of recommending the Mallock Armstrong ear defender with which he was afterwards fitted out by the P.R.I.

This is an extremely ingenious device which is not as well known nor as widely employed as it ought to be. All other devices, such as india-rubber or wax plugs are a nuisance as they cut off the feeble sounds much more effectually than the loud.

It consists of a vulcanite speculum or ear tube something like a chess pawn in outward shape, the head of the pawn going into the ear first and the hollow base being only just visible outside.

Half way down the tube is a thin vulcanite diaphragm so thin that it vibrates to the weakest sound waves and being thus transparent, as it were, to them enables the wearer to hear a whisper or to take a telephone message.

The gem of the invention, however, consists of two fine wire screens stretched across the tube a little above and a little below the vulcanite diaphragm. They act as dampers

to any extensive vibrations of the diaphragm such as would be caused by very loud sounds like those of explosions close at hand, the vibrations of the diaphragm causing it to collide with the wire screens and so be reduced. Hence the apparent miracle of a device which is pervious to weak, but impervious to loud sounds.

Always be on the look out for opportunities of increasing your medical stores. Thus, when camping near another unit, especially if it has come from some other command, make friends with the M.O. and get him to swap any of his superfluities for yours.

In the same way be always on the look out to acquire another tent. The single medical tent with which you are furnished is a miserable minimum.

At the end of our first month in camp I nearly always had three. One for clerical work, one for drugs and dressings and a third for detained men.

A man gets kicked in the abdomen by a horse. Such a case is alarming but seldom fatal, because as a rule the man is too near the horse to get a full blow. In such a case recommend to your C.O. that removal to hospital would be dangerous. Somehow or other in a very short time a tent is placed at your disposal.

When you are later called upon to evacuate the tent it is either occupied by scabies cases or it is infected and you are awaiting instructions how to disinfect it. After a time they forget that tent.

One great difficulty I had in my time was that of providing hot water baths for the men.

It is nothing short of a scandal that men should become verminous in a camp in England.

One little point is that the men being removed from home influence forget to change their underlinen.

Get hold of the Company Sergeant-Majors and impress them with the importance of seeing this or better still have inspections early in the morning just after "reveille." If you have the men lined up with their shirts turned inside out you and your Corporal should be able to inspect a whole company before sick parade.

Parasites may be found in the seams long before scratch marks appear on the men's bodies.

The R.E. have an idea that all that is required is the erection of a few cold shower baths, perhaps because they are easy to erect.

Once I came across a C.R.E. superintending the erection of half-a-dozen cold shower baths in one of my camps early in April. I pleaded with him for hot water, but found him obdurate.

Not noticing that one of his three pips was a crown I told him my mind in terms of equality pointing out that except during a few hot days in summer his precious baths were unlikely to be used at all and to clinch my arguments turned to his Sergeant, who was standing near and asked him what he used when he wanted a thorough wash. He diplomatically said he invariably used cold water, so I left them in disgust.

In another battalion there was a fine bath house with forty baths in it, but no means of getting any hot water because the furnace was out of repair.

I reported on these matters week after week with no effect, until finally I hit on a solution.

I indented for a hospital marquee, reasons for indent being epidemic of scabies. They sent me two of which I allowed the Quartermaster to keep one because on unpacking it I found it to consist of two halves which did not fit. Then the outbreak began and I filled it with scabies cases, always giving the disease the benefit of the doubt in cases of doubtful diagnosis.

The finest cure is the material like liquid cream-cheese obtained by boiling quick-lime and sulphur together in water. On applying it with a whitewash brush so much cutaneous reaction is produced as to make the original diagnosis unassailable.

I believe that it was through the friendly offices of my C.O. that I was now called upon by Brigade Headquarters to furnish a report on the outbreak of scabies and the best means of immediately dealing with it.

This gave me my chance and enabled me *inter alia* to point out that in civil life if the plumber, when summoned to repair a grate, did not come a rival firm was applied to next day. In military life seven weekly reports ended in nothing being done. With regard to the C.R.E. and his cold shower baths, I pointed out the futility of expecting the men to use them in cold weather and though helpless in the army in civil life I should not be likely to let the plumber dictate to me at

what temperature my patients baths were to be taken. As the C.R.E. was not excessively popular I heard that B.H.Q. were rather tickled over his new designation.

Whether he got any hot water I don't know but my men got all they required in future.

I did not mention in my report that in the meanwhile I had adopted the plan recommended by my friend the coal getting Quartermaster and arranged that with the exception of one used for the supper soup, all the other Soyer boilers were made available for hot water after 5 p.m. and three or four rectangular coal boxes in an adjoining marquee were used as baths.

As regards grease traps in camp, use anything recommended in the books so as to comply with the regulations and don't worry if they don't act, not even the best materials, grass and spoiled hay, are really efficient.

As regards your camp outfit I don't think it much matters where you buy it, all the outfitters are alike even to the point of making the price fit the grant.

One luxury you might omit is the camp bedstead. As you will not be allowed to take it to the front you might as well from the start accustom yourself to sleeping on the ground. You will find that a blanket folded on the cork mattress will make it softer and in time you will not even desire a change, as in cold weather you will find the ground much warmer than the bedstead.

I nearly bought you a derelict outfit the other day at the Hotel. One of my fellow officers noticing a large bundle under his bed pulled it out and found it contained a valise with complete outfit.

On reporting his find to the manager it was identified as a valise delivered at the hotel months previously and which had immediately afterwards vanished completely so that in the end the young officer to whom it was addressed had to buy another in a hurry before leaving for the front.

I tried to get into touch with his people in order to buy it for you but although I failed in this I got a very interesting tale from the young lady who presides in the office.

She said that on account of its size the complete disappearance of the parcel caused a nine hours wonder and she quite remembered the lieutenant's departure because in his hurry he went off with some novels she had lent him in order to persuade him to stay in bed when ill with influenza on the top of inoculation. On my expressing sympathy she said her loss was nothing compared with that of his chambermaid's. Of course this part of the story was confidential because it reflected on the management. But at the time the lieutenant was summoned he was away home on a few days sick leave and as the weather was very severe his chambermaid had taken advantage of his absence to light a fire in his bedroom and to use it as her private sitting-room.

At the moment that the hall porter telephoned up to announce the lieutenant's unexpected return and to ask if his room were ready she was engaged in curling some ostrich feathers in front of the fire and a lady friend was busy writing a love letter.

To avoid being surprised the girls bundled all their belongings into an empty cupboard and were busy putting the finishing touches to the room when he walked in.

When next they had an opportunity of entering the room it and the cupboard were bare.

His bâtman had evidently, acting on his master's orders, packed everything into the valise, including ostrich feathers, love letter and penny bottle of ink.

As you rightly assume in your last letter my job of examining recruits differs considerably from what it was at the beginning of the war.

Then it was difficult to keep out the overaged and high-spirited crocks, now the surprising feature is that nearly every likely looking young man has had to give up football and cannot walk further than a mile through having dislocated one of his semilunar cartilages, the saving clause as far as the examiner is concerned, being that the recruit as a rule does not know whether to point to the inner or outer side of the knee as the location of the shifty one, and when asked what happens when it dislocates he becomes hopelessly vague.

I remember in the early months of the war a party of four lads presenting themselves three were helty boys, but the fourth although perhaps the brainy one of the family party was hopelessly undersized.

I had however to turn them away because they refused to be examined unless I accepted the little chap.

At the end of the morning finding that they were still waiting I told them it was of no use as I dare not take their friend. They, however, wished now to capitulate as it appeared this was the fourth recruiting office they had tried and having done their duty to friendship they had determined to cast Jonah overboard.

Of course, nowadays, Jonah would have been asked to volunteer for the tanks. It is quite pleasant to see the sparkle that comes into the eyes of one of these little chaps who has previously been found too small for the bantams when you suggest that if otherwise satisfactory he will do for the tanks.

Now, of course, the examination is much more thorough, one doctor tests his eyesight and then after he has been measured and weighed another asks about important previous diseases and examines his heart and lungs whilst the last puts him through his gymnastics and classes him.

It is as democratic an assembly as that announced by the last trump will be, the only difference being that the single garment worn is a Burberry or old coat instead of a shroud. A couple of merchant princes survey the strange scene with good humoured tolerance, discussing golf whilst waiting their turn, which is delayed through the gentleman before them being a difficult case, the said gentleman looking as if he might claim expert knowledge of H.M. Prisons, but certainly no recent experience of baths. It is certainly strange to find that by simply looking at a man's face, before he betrays himself by his speech, it is sometimes quite impossible to discover a man's station in life. A man with a fine head full of character turns out to be an unskilled labourer. There must be a lot of truth in the saying that often it only takes three generations to pass from shirt sleeves to shirt sleeves.

Even nowadays you may unexpectedly come across a willing recruit. Such a man betrays himself by standing with his chest as big as he can make it and later on he may, if you show any doubt about his classification, say casually that he doesn't care, but that if he must go he would sooner be in the firing line than in a labour battalion. He is the kind of man who does not always let his wife know what he thinks of doing. When my heart and lungs colleague turns an apparently able-bodied individual, with whom he has been having ructions, over to me and in handing on his papers whispers "cold feet" as a warning, I often find that the best plan is not to blame his lack of spirit, but to admire his chest expansion, praise his physique, and put the finishing touch by telling him that by the character stamped on his face nature meant him to be an officer and that you have little doubt that in the course of a year he will have his commission. I thus frequently avoid the infliction of the fancied disabilities with which he has assailed my colleague.

I once came across a very similar case to the old classic of the early days of the war where a disappointed recruit on joining his friends outside told them he had been turned down through giving his age as 49. He took their advice to walk round the square and take a few years off before he applied again, and accordingly startled the recruiting sergeant by telling him he had made the mistake of giving his mother's age when he said 49. He himself was only 38.

One evening when busy compiling a return in my inspection room in barracks there came a knock at the door and the town recruiting sergeant came in with a tall, elderly man; the sergeant brought the R.O.'s compliments and the major would be glad if I would examine the recruit.

One glance was enough, I pointed out that the man was far above age. The man himself was insistent on his perfect fitness, saying he ,had lived a hard life and hence looked older than his real age which was 39. He wanted to strip, but I contented myself with a casual examination of his mouth, and exclaimed that he had not even any teeth, but had to admit in answer to his expostulations that this was an exaggeration as he actually had three equidistant stumps.

The sergeant agreed with me that the major had been too keen, and was grateful for my offer of a certificate of rejection. The man being asked his name said, "Quinn, surr." "Quinn?" I said, "We have a man in the battalion of that name." "My son, surrr." "But he gives his age as 29. How do you explain that?" "He's a good lad, surr, but an awful liar." "That seems to run in the family."

Next morning when I saw Quinn I said, "Your father was here last night trying to join." "So I believe, sir. A terribly wilful old gentleman he is." "How old might he be?" "Well, my eldest sister is nearly fifty and she has two lads in the army; I should think he's

73." You may say the old man had the patriotic spirit anyhow, and I dare say you are right; he smelled strongly of something of the kind.

Nowadays fashions have altered and the majority are only anxious to display their defects.

Many, owing to their previous rejection under the higher standards prevailing, have thereby found out that they possess valuable disabilities of which they were previously ignorant.

Some are too dense even to profit by this knowledge, as was the man who said he had been rejected for a hernia which he said gave him great pain and then spoiled the effect when asked to place his hand on the painful place, for he put it on the sound side.

Another who alleged disability through hæmorrhoids when asked in what way they troubled him said they caused dizziness and singing in the ears.

The scandal of the day is that these shirkers should be able for a guinea or two to provide themselves with certificates skilfully painting their condition in lurid colours written by consultants, whose opinions I fancy would be totally different if their humanitarian efforts had to be gratuitous.

One such certificated sufferer with a cardiac murmur of no importance enlarged on his certificate written in careful and non-commital terms by telling me mournfully how his doctor had stopped his tennis, his golf and his cycling. I tried to cheer him up by assuring him that although his doctor had needlessly debarred him from many good things he was not going to keep him out of the army.

As I told him as he left, if he could only fix his present expression it would be a pity for him ever to have to wear a mask when meeting any Germans.

One recruit, a case of dyspepsia, after handing the examiner a couple of such certificates, judged by the expression of his face, while reading them, that they were going to fail him, so in desperation he added, "And my doctor only allows chicken. I've eaten nothing but chicken for the last three years!" The examiner beamed at him paternally over his spectacles. "Aye, just so my son, that's it. You've in fact eaten chicken until you have become chicken-hearted. Are you married?" "Yes, sir." "Well then ask your wife to cook you some tripe. Eat plenty of tripe, that'll put the guts into you."

Yet they are never grateful. Take the case of the healthy looking young man who complained of persistent enuresis. He would gladly have joined up but that his disability made any kind of military service a physical impossibility. Was he grateful when told that he would be posted to a Highland Regiment.

I quite appreciate your complaint about your men being billeted in scattered lodging houses. It is subversive of all good discipline, even the N.C.O.'s degenerate after a time.

The only thing you can do is to visit the sick at odd, unexpected hours.

I remember making a nice little haul one Sunday Half a dozen shirkers were lured into admitting at Saturday's sick parade that they considered my unsuccessful treatment of their complaints both harsh and unsympathetic, as they really felt too ill to keep on their feet. They one and all grasped with avidity my offer to let them stay in bed over the weekend and faithfully promised to stay there till I called on Monday morning.

But I called on Sunday instead and found one playing cards in the kitchen, two were out walking, two, who apparently had no lady friends, were practising songs at the piano and as to the last his landlady was surprised at my appearance, because she had been to some trouble to wake the corporal early in order that he might catch a train to a neighbouring town.

You will find that a little thought and trouble expended in this way will purify the air and reduce your sick parade considerably for some time afterwards.

After the first month or so in a battalion your duties will become somewhat humdrum, but at the beginning the malingerers will afford you plenty of legitimate sport.

(To be continued.)

Guy's Hospital Dental School.

APPLICATIONS are invited for the post of Senior Dental Officer and Clinical Tutor. The duties include general administrative supervision of the Conservation Room and the giving of Practical Demonstrations. The hours of attendance are from 9 a.m. until 12.30 p.m. Commencing salary £300 per annum, rising by yearly increases of £25 to £400 per annum. Applications to be lodged not later than Friday, July 18th, 1924, with the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, from whom further particulars may be obtained.

Appointment.

C. S. Lane-Roberts, M.S., F.R.C.S., Obstetric Surgeon to Out-Patients, Queen Charlotte's Maternity Hospital.

A Glimpse of the Future.

SCENE: *Park of Guy's Hospital at about 10.15 p.m. in the early part of June 1954. The depressing red brick of the Massage Department and the mournful black front of the Surgical Blocks have for some years been masked by a permanent white facing (now partly covered with climbing plants), which retains its pristine purity of hue, the burning of coal in large towns having been forbidden by law long since. Built outwards from each floor of the Medical Block, constructed now of solid while granite, are three marble balconies, upon which patients are peacefully sleeping. Four yards from the ring of buildings, entirely surrounding the grassy space within, and on the inside of a circular pathway, is a ring of laburnum trees, their rich golden racemes of flowers hanging like grapes under a brilliant full moon. Running from the Colonnade steps towards the middle of the Baby Ward, is a long Pergola, shaded with thick clusters of sweet-scented climbing roses, which opens out on to a space, in front of the Baby Ward, in the middle of which a fountain is lazily playing into a round pool full of water lilies and goldfish. Six magnificent copper beeches, spaced appropriately in the enclosure, provide, in the heat of the summer, a grateful shade. The handsomest grows at the point where the pergola gives on to the pool, which it partly overhangs. Running over the roof of the Baby Ward, and twining round the fluted pillars that support the marble balconies, is a luxuriant growth of Wisteria, now in full bloom. Between the circle of laburnums and the Pergola, are flower beds, and little patches of rock garden, sheltered here and there by delicate silver birches. Surrounding the pool and open towards the Baby Ward, is a half ring of lilac bushes, inside which are a few deck chairs.*

The air is warm and heavy with the perfume of many flowers, among which moths are flitting. There is silence except for the faint silvery note of the moonlit fountain drops, falling into the pool.

A sound of running is heard. A large grey cat appears at the opening of the Pergola and swerves to the left, skirting the pool. It runs round the furthest lilac bush, and then doubles backwards towards the open door of the Medical Block. Two students now appear in pursuit.

FIRST STUDENT (*stopping short*): There she goes.

He dashes off in the new direction. The cat runs through the porch of the Medical Block, and into the Ward on the left of the ground floor. The student stops, turns about and rejoins his companion by the fountain.

FIRST STUDENT (*a little out of breath*): No good, Gavin. It ran into Putnam-Symonds. Had to give it up. Sister Putnam-Symonds won't be very pleased if she finds it there to-morrow. She loathes cats.

The speaker is below the average height, dressed in knickerbockers. He is of spare build, his hair is cut short, and his somewhat drawn face wears an impish expression.

GAVIN: No she won't, but forget the cat now, Arthur, and lets get on with some of this work. Every moment is precious when one has an examination, hanging over one's head like a Sword of Damocles, actually within 12 hours.

(*Gavin is of medium height, broad-shouldered, light-haired, clean shaven and handsome. His manner and mode of speech are dignified and methodical, prophetic of a large practice and big reputation in future years.*)

ARTHUR: Oh, work, how I hate it. (*Sinks down in a deck chair.*) Gosh! It's hot. The least movement in this weather makes one sweat. (*Looks up at the sky.*) What a perfect night, Gavin! (*Chants.*) "O Lovely Night." It's a crime to work on a night like this. We aren't *intended* to work on such a night. (*Glances towards the Nurse's Home.*) Other things are intended for us.

GAVIN: Quite so. I am sure examinations were never *intended*, but they exist all the same. What time did you say she was coming?

ARTHUR: A quarter past eleven. That leaves us about half an hour.

GAVIN: Have you discovered who are examining to-morrow? The only one I know of for certain is Norman. I should think we had better go over some of his theories, hadn't we?

ARTHUR: Right. I was on with him in my last three months Medical, and I think I have about got his measure.

GAVIN: You go ahead then.

ARTHUR: Well, of course, he got his ideas from a bird who functioned about fifty years ago, Sir Arbuthnot Bland-Mummery, I believe he was. This lad said that all the trouble came from toxæmia due to intestinal stasis. Well, inspired by this view, Norman asked himself what other effects the assumption of the erect position might have had and the brilliant idea of venous stasis in the posterior part of the costo-phrenic angles hit him. Isn't that it?

GAVIN: More or less. In the quadruped this part of the lung is drained by gravity. In the biped it forms a nice little pocket for bugs to breed in. Then in 1935, or thereabouts, the Eyre-Positive Pneumo-Spirillum of Biddle was aspirated from the costo-phrenic angles, and grown in this Hospital on Jarman's Beer-Agar Medium, and was found to produce a progressive, and ultimately fatal anæmic cachexia in all animals except bats, kinkajous and others that sleep hanging with their heads down. This startling fact suggested the line of treatment which——

ARTHUR (*interrupting*): I heard Norman describe it himself. (*He begins rhetorically*): "My treatment, gentlemen, consists essentially in getting back to Nature, as our friends the lower animals have taught us. The human body, in its structure and function, has been slow to adapt itself to those changes of posture and bodily mechanism that are crudely thrust upon it by the stress of the struggle for existence. It is only in the rough, that the human organism has adapted itself to this revolutionary change in its relation to the forces of gravity. Only in the rough. Sufficient, that is, to effect a crude survival superiority. That is as far as Nature goes. For that finer equipoise, for that more delicate adjustment to environment so necessary for the full harmony of the human soul, and the ultimate happiness of the human race, she cares nothing. There is more than an analogy, gentlemen, between that failure of the human mind to adapt itself, in any but the most imperfect manner, to conditions of complete social and international peace and concord, which has given rise to riots, strikes and internecine wars, and the failure of the human body to conform, in any but the grossest way, to the pull of gravity in the erect position, which has given rise to varicose veins, femoral and inguinal herniæ, lumbago, prolapse of the female genital organs, apical tuberculosis, placenta praevia, intestinal stasis, scoliosis, and last, and I hope I may claim with due modesty not least, costo-phrenic cachæmia. Nature makes the coarse adjustments, gentlemen, and leaves the finer ones to us. In fact the making of these finer adjustments is our material and spiritual purpose here on earth. You can take that from me." (*Pauses.*) "Though we are compelled to spend some fourteen out of the twenty-four hours in a condition of activity, with the axis of our bodies in the direction of the force of gravity, is that any reason, gentlemen, why we should not make the best of the ten hours of rest to which we all have our claim? It appeals to your common sense that we should so arrange our postural relation to the earth that on balance, in the 24 hours, we approximate as closely as possible to the attitude of our quadruped ancestor, the axis of whose body remained at all times at right angles to the direction of the earth's pull."

GAVIN: Look here, if you start quoting Norman we shall be here till ten to-morrow and the examination starts then. Let's get down to details of diagnosis and treatment. What are the conditions under which you are justified in embarking upon the full Robertson treatment?

ARTHUR: You have got to have a Positive Mitman in blood and cerebro-spinal fluid, and the patient's Ryffel has to be negative in his saliva. Then with regard to the blood, the Shackle reaction must show at least 68 per cent. of Xanthrophylls, and the Hampson-Warner refraction curve must not show a deviation of more than 24. And his Tears must be positive to the Way-Rear test. If these are your results, your patient can definitely be said to have costo-phrenic cachæmia.

GAVIN: Is it necessary to find Biddle's

pneumo-spirillum by aspiration of the costo-phrenic angles?

ARTHUR: No.

GAVIN: Quite right. Emphatically, No.

ARTHUR: Well now, about treatment.

GAVIN: Well the object, of course, is to get your co-efficient of axial gradient as near as possible to what Robertson calls the "Quadruped Norm," which is 1, but never, of course, to get below it. The formula for your co-efficient of axial gradient is $\frac{\text{H.E.} \times \text{V.A.}}{\text{H.R.} \times \text{R.A.}}$ The treatment consists of doing unto a patient's bed as you would to a car with a front tyre burst, i.e., you jack the foot of it up until the patient is sleeping head downwards like a bat. The stages are: for the first 10 nights you jack up 3 degrees each night. Then for the next 20 nights $1\frac{1}{2}$ degrees each night, and for the last 30 nights 1 degree, completing the full Robertson in 60 nights or two months, with the patient in the complete inverted position. To get your co-efficient, you multiply the number of hours a patient spends in the erect position (H.E.= hours erect), by ninety, which is your V.A.— the vertical angle=90. This is your numerator. Then you take the number of hours a patient spends in bed, your H.R. (= hours resting) and multiply that by the angle of his bed, (R.A.= recumbent angle). That is your denominator. You work that out and get the co-efficient of axial gradient. Thus, if a patient spends 14 hours walking about his H.E.=14. That multiplied by V.A., 90, gives you 1260. If he spends 10 hours in bed jacked up to 60 degrees his H.R. is 10, and his R.A. is 60. That gives you a denominator of 600, and a co-efficient of $\frac{1260}{600} = 2.1$. The ideal of the Robertson system is to reach a co-efficient of 1 like the quadruped, but in practice this is difficult to realise. For therapeutic purposes a co-efficient of between 2·2 and 1·8 is enough, and this is borne out by the work of Lieut.-General Sir R. Vincent-Cookes, C.M.G., R.A.M.C., on the action of alcohol on the involution of Hassels corpuscles in the thymus gland, in the regulation of postural tone. He is, of course, the great authority on the physiological effects of alcohol.

ARTHUR: Quite, but did you know that four months ago Norman brought his co-efficient down to 1·6? He now refuses to treat patients who go above that, whatever their complaint. Also he has recently altered the original pattern of the Dunstan-Reade jacket that his patients have to sleep in after they have passed 20 degrees. That fellow Dunstan-Reade must have made a big fortune, I should think, with his patent "Jack-me-up" beds with chain attachment to ceiling, and the three strengths of "Hold-Fast" Pneumatic jackets. His son drives here in a Rolls-Royce every morning, you know.

GAVIN: Up in Beddard, they are having a new ferro-concrete ceiling put up to hold the beds. The ward has been cleared, and Sister Beddard told me yesterday that it won't be occupied again for 3 weeks. Old Norman has got the courage of his conviction, too, by jove. When he first put his ideas into practice, two of his patients, in the first 4 days, died of cerebral hæmorrhage? Was he daunted? Not at all. He compensated the relatives and said he was glad of the opportunity to demonstrate at P.-M. the complete absence of Pneumo-Spirilla in their costo-phrenic angles. And, by the way, don't forget, for the examination, the work of Ho-akai on the axial gradient. He is Pathologist in Chief of the Hospital for Tropical Women's Diseases at Timbuctoo.

ARTHUR: No, I won't. Hallo! Here she comes.

The figure of a woman is seen sauntering gracefully down the Pergola.

GAVIN (*Yawning tactfully*): Well, I think I shall be going to bed!

ARTHUR (*hurriedly, in a lowered voice*): No, please don't. Stay, at any rate for a few moments. (*Turns towards the figure, which has emerged from the Pergola.*) Well, I *am* glad you have come. Do come and sit down with us. Isn't it a simply gorgeous night? Just think of it, we are actually *working* here. By the way you know Mr. Scholefield?

LADY (*shaking hands*): Good evening.

GAVIN: Good evening, nurse.

(*Short awkward pause.*)

NURSE: I heard a lecture by Lord Bernard Scholefield's last week on "Hæmopathology and Crime,"—all about his tests. Those are wonderful discoveries of his.

GAVIN: Yes, I am afraid my father thinks of little else just now. Won't you sit down?

The nurse sits down. In accordance with the tradition established in 1943, *applicable to nurses off duty in the evening, she is in evening dress. She is*

tall and wears a smart black silk gown, low in the neck, with a red rose in the waistband. Over her shoulders is a red Venetian shawl. She wears a handsome tortoiseshell comb, at right angles to her head, in her hair behind. Her complexion is pale, and the cast of her face, and her eyes, have an elusive suggestion of the Japanese. She moves with deliberation and grace. Her expression is alert, but composed. It is impossible from her face to guess what she is thinking. She now lies back in her deck chair and relaxes herself completely, with a mixed expression of boredom and fatigue. The shawl falls from her shoulders, revealing a shapely neck and white arms.

NURSE: Oh Lord, I *am* tired. There was an explosion this afternoon from Sister Burton, because I forgot to raise the points of three of my beds. The patients don't like it, you know, this new treatment. One of them said this afternoon she would soon be developing a tail like an opossum, to hang from the beam by.

ARTHUR: Ha, Ha. How's old Chitty these days? He's only got your ward to go round now that his colleague, Norman, has made his other ward uninhabitable.

NURSE: Oh, he is very full of himself. He gave his students a splendid little homily this afternoon. (*Here the nurse sits up, and with unexpected vivacity begins to mimic.*) "Now, gentlemen, I am going to give you two little tips. Two little tips. One for your inner spiritual benefit, and the other for your professional benefit." (*The nurse here moves her extended finger.*) "Whatever you may hear Cynics say, and whatever you may think of the sadder aspects of life here in hospital, remember, 'This is the *Best* of all *Possible* Worlds.' Be convinced of that and you will be happy. That is for your soul's benefit. Now for my second tip, which, if duly followed out, will be of greater value to you in your careers than all the stuff-and-nonsense you learn in class-rooms and laboratories. 'Make *your patients* feel that this is the best of all possible worlds.' That may sound a platitude, but believe me, it is a precept which might be followed with advantage by some of my colleagues here. And believe me, if you succeed, you will do your patients more good that way than you will with wagon loads of pills and powders or buckets full of medicines, or dozens of Wertheim's or Grant-Massies, or whatever the fashionable operation happens to be. You may not think this now. You may think you are listening to the ramblings of a silly old man nearing his second childhood, but believe me, in time you will, gentlemen, in time you will."

ARTHUR (*who has been looking at her admiringly, with open mouth, awed*): By jove, you did that well Sylvia! Who was the colleague he meant?

GAVIN: Sir Reginald Hern, of course.

ARTHUR: Yes, of course. He is a Gloomy Gus, some days.

GAVIN: But he brightens up sometimes. Last week, on one of his rounds he got going on how the wards in this hospital came to be renamed. Do you know how that happened, Nurse?

NURSE: Vaguely, but do tell me.

GAVIN: The movement was started by a thesis written by Putnam-Symonds, called "Mind Tone: with special reference to the management of Hospital Patients," in which he maintained that a 28 per cent. improvement in the rate of recovery of patients and a general brightening up of their subsequent attitudes towards life occurred if, in the course of their stay in hospital, no frightening or depressing thought sight or sound was allowed to strike them. It was he, of course, who evolved the technique for the estimation and measurement of Mind States. "The same caution should be taken to prevent infection of the mind with lowering or devitalising-influences as is taken to avoid contaminating wounds with germs." This was the aphorism that earned him his Baronetcy in his first work "The Technique of Mental Asepsis in Large Hospitals." Well, you know that a great many of the wards in those days were named after Biblical characters—mostly Apostles and lepers, I believe. One day a keen young medical student was admitted into one of the Surgical Wards for a septic flea-bite in the calf, acquired in the Front Surgery. He was carried in on a stretcher for some reason that isn't stated, and took with him a Text-book of Medical Jurispudence and Toxicology. After being put to bed, he read three pages of this book and then, all of a sudden, lapsed into what seemed to be one of the most lethargic varieties of Encephalitis Lethargica ever recorded in this Hospital. He did not wake up

for a fortnight and had to be fed through an œsophageal tube. His leg was operated on without an anæsthetic being required. Eventually, he made a complete recovery without complications. At first the theory that found most favour was that the soporific effect of the book he had been reading plunged him into this refractory stupor. This view was strongly supported by the extreme degree of somnolence induced in students by lectures upon this topic. In fact it held the field, until, by a brilliant analysis Putnam convinced the student himself and the Medical Council that, as the student was being carried in, he raised his eyes, and saw the name of the Ward above the door. Of all things, it was "Lazarus." A degree of Congestive Mental Intoxication was produced by this that accounted for all the symptoms. Then, by unanimous consent, all the wards were re-christened in a more cheerful vein, and one of them was justly named after Putnam.

NURSE: Yes, and I would like to draw your attention to this. It was first decided that no more edifying or vitalising names could be found for the wards than those of the "World-famed Teachers and Healers which honour the Archives of this Hospital." And, if you please, it was first proposed to make use only of the names of eminent Surgeons and Physicians. This was what the Medical Council solemnly suggested, in the exuberance of their sex-arrogance, until the particularly energetic Matron of the Hospital, before whom our mothers trembled, pointed out to this Council of duffers that the people who *really* cure, and who *really* know the patients, in the medical wards at any rate, are not the doctors at all, but the Sisters and Nurses. They are the ones who live with the patients day and night and minister to their needs. All the Physician does is to stroll in on about three afternoons a week and Talk. This did not seem to have struck the Council before, but they were quite acquiescent, and agreed that three of the Women's Medical Wards should be named after celebrated and well-beloved Sisters. In fact the ward in which I am now Strings was renamed after a Sister under whom my mother was once a Staff Nurse. And they decreed that the names shall be changed every forty years, didn't they, as the names, when obsolete, lost their galvanic effect upon the patients. But just think what our mothers used to put up with in those days! Fancy submitting to be called by those names! What would you do, Mr. Scholefield, if someone called you "Brother Lazarus?"

GAVIN: I'd knock him down. But you can't complain that your sex is overlooked nowadays, Nurse, can you? Why there was a time when nurses were afraid of being seen by students in their unofficial costumes. In those days they used to scuttle like rabbits out of the Colonnade on their afternoons off and nod guiltily, in a nervous way, at the students hanging about whom they knew. Just a flitting, harrassed little nod, nurse, as they rushed past. You would not know how to do that, would you?

NURSE: No, I wouldn't.

At this moment, in the distance, coming from the Superintendent's House, the sound of a highly trained woman's voice is faintly heard. It is singing Tosti's "Mattinale."

GAVIN: That must be the Superintendent's third daughter, Miss Marjorie Bonar, isn't it? She certainly can sing. I believe she inherits her musical talent from her father.

They listen for a few moments without speaking.

ARTHUR, *who has been gazing at the Nurse* (*In a distressed voice*): Sylvia, you know, you . . .

He breaks off.

GAVIN (*A slight agitation betraying itself through his composure*): Well, I really must be off. Good-night, both of you!

He departs in evident haste down the Pergola. The moon turns the showering fountain drops into a cascade of jewels and plays upon Sylvia's white arms and shapely neck. Balmy scents of flowers fill the air. As he looks at her, Arthur's agitation visibly increases. Sylvia slightly raises her eye-brows and a faint smile plays upon her lips.

SYLVIA: What were you going to say a minute ago?

ARTHUR (*Embarrassed*): Oh nothing really. Nothing, that is, that you haven't been told many times before and know perfectly well.

SYLVIA (*lowering her head and eye-lashes, and looking at him side-ways with a very provocative expression*): Please tell me. I want to hear it, whatever it is, from you.

ARTHUR (*Greatly agitated*): Oh, Sylvia, it sounds so silly and I hate throwing bouquets at you, especially when you've had them from

dozens of students and residents and people before. But you know . . . on this lovely night . . . to see you sitting there like a statue in the moonlight . . . and with that music . . . (*He gulps. She looks at him, smiling inscrutably.*) One doesn't admit it, but this, to me sometimes rather dreadful work in hospital makes me feel . . . makes me want something at the other pole of experience . . . and then this hard work for examinations, with its strain on the intellect, is tiring and makes one long for some outlet of quite a different kind which . . . Oh, Sylvia, don't you understand?

A clock methodically strikes the three quarters of the hour. Sylvia jumps up suddenly, and seizes her shawl.

SYLVIA: Gracious! A quarter to twelve! Sorry Arthur, you must tell me another time. Good luck to you in your exam. Goodnight!

She flits away down the Pergola. Arthur stands for a moment looking after her and then collapses dejectedly in a deck chair, where he sits for some minutes with his head in his hand. Suddenly he blushes.

ARTHUR (*With heat, to the fountain*): That girl, she made a complete and perfect fool of me then. A complete ass. And without addressing a word to me! Just by sitting there and making me look at her. The fact is, we men don't stand a chance against them nowadays, not a chance. Not an earthly chance!

He drags himself up and walks sadly away down the Pergola to bed. For a space there is silence, except for the sound of the fountain in the pool. Slowly 12 o'clock strikes. Then a pale, ghostly figure walks down the steps of the Medical School and stands on the balcony outside the Baby Ward. It is the bust of Sir Herbert French, in the entrance to the Medical School, come to life. In full dress, with monocle, spats, patent leather shoes and buttonhole, he stands, with his right arm over his heart, like a British Mussolini, gazing at a star that hangs in the sky over the Colonnade. Suddenly with raised index finger, he beckons to it, with the gesture of Leonardo's St. John the Baptist. The star disappears. A second time he beckons. The star reappears and shines more brightly. He beckons a third time, and unmistakeably the star twinkles at him, once—twice—thrice. An expression of happy content crosses his face. He turns to the left, slowly re-ascends the steps of the Medical School and turns again into his stone Bust.

C. P. B.

Surgical Cleanliness.

FEW men at Guy's realise that the surgical technique which they see and learn at Guy's is practically non-existent outside Guy's.

There are, of course, scattered about a number of old Guy's men, chiefly disciples of Sir Arbuthnot Lane, who continue to practise surgery with the full aseptic ritual imparted to them by that incomparable surgeon. (Whatever their views on the subject of the theories advanced by Sir Arbuthnot Lane, those who have had the opportunity of working under him are invariably agreed that as a practical operating surgeon he is unique.) The fact remains, however that the aseptic technique learned by some of us at Guy's—I say some of us because there are many men who qualify and even do surgical house-appointments at Guy's who never take the opportunity of learning it at all—seems something very remote when we go out into the world to earn our living.

The writer is one of the younger generation of Guy's men in practice, just young enough to still feel in touch with the modern spirit of Guy's and just old enough to be able to look back on several years of life as a common or garden general practitioner. I confess I am one of those, there are doubtless others, to whom the Lane technique, learned first under Lane, and then under Fagge and Trethowan, became little short of an obsession. It sank into me so deeply that it has remained an obsession ever since. I often ask myself whether this aseptic technique is really worth bothering about, whether it is worth retaining on the pedestal upon which one put it as a student, or whether it is merely so much "swank" on the part of those who teach it. I have so often seen men plating bones or doing grafts with their fingers in the wound handling the bone. The patient usually gets better and has a serviceable limb. Why worry? The answer is that the Lane technique, as we call it, becomes to one a sort of religion any infringement of which is anathema for two reasons. In the first place it is our duty to our patient to introduce into the easily infected tissues of his body (e.g., bone) nothing which is not absolutely sterile. It would be just as logical to dispense with sterile towels for abdominal operations. If we did a hundred abdominal sections with ordinary clean towels fresh from the laundry ninety-nine would probably take the usual uneventful course while the hundreth might become horribly septic. In the

second place, at any rate in bone and joint surgery, one instinctively feels that the practice of the Lane technique is a *sine qua non* of the high-class surgeon. Whether the future will prove this conviction to be justified remains to be seen. There recently appeared in the GAZETTE an intensely interesting series of lectures on the operative treatment of fractures by a very well-known surgeon. It was a great disappointment to read that the lecturer performs his operations with nothing more than ordinary "abdominal technique." A few weeks ago the *Lancet* published an article by an American surgeon who operates with "socially-clean" hands covered by rubber gloves which are then soaked in antiseptic. Whatever the results of this method may be in the writer's cases I feel that it would be a disastrous routine procedure to teach to students and nurses.

It is high time that surgical technique in general as practised under various conditions and by various individuals be submitted to an exhaustive bacteriological investigation. Is it essential to compress the patient's skin? How long *must* an instrument be boiled? What is the danger when the surgeon (or as very frequently happens, the sister in charge of the instruments) does not wear a mask? Upon all these and other points some definite and authoritative ruling is needed. The objections to the all too common practice of operating in gloves with short sleeves and bare arms are obvious and call for little comment. One other point occurs forcibly. Some surgeons are in the habit of changing only their gloves, and perhaps sleeves, between one operation and the next. This proceeding surely is absolutely damnable. The front of the overall is splashed with the previous patient's blood. Who knows but what it contains spirochætes? The handle of an instrument or a ligature trails against it. Perhaps the blood is cancerous. I have seen a surgeon open a "clean" abdomen in the same gown in which he had just operated on two cancers of the breast, and have watched the instruments touch cancerous blood on the front of his overall. The days when the surgeon operated in a filthy frock-coat are not far behind!

Let those who are still students cherish their aseptic ideals. The ward-clerk of to-day is the surgeon of to-morrow. He is passing through the finest school of practical surgery in England, probably in the world. It is doubtful whether what we call the Lane technique is as thoroughly taught in any other surgical school. Any fool can make a living in medicine. The surgical refinements which are to be acquired by those who seek them at Guy's to-day are treasures worth preserving.

A. ERNEST SAWDAY.

Reviews.

Venereal Disease: its Prevention, Symptoms and Treatment. By HUGH WANSEY BAYLY, M.C. Second edition. Published by Messrs. J. & A. Churchill. Price,

THE preface and the first chapter of this excellent little work are devoted to a theme which, though it may still be regarded by a few as controversial, must be admitted by all to be dealt with fairly and adequately—the prevention of venereal disease. The admitted object of this book, as will be deduced from the dedication, is to further the aims of the Society for the Prevention of Venereal Disease. The subject is treated with singular fairness and perception.

The remaining sections of the work are devoted to a clinical consideration of venereal diseases, their diagnosis and treatment, Section II. dealing with syphilis, Section III. with gonorrhœa, and Section IV. with non-specific lesions. The fifth and last section is devoted to the patient, methods of examining him, observations as to his mental outlook, and hints as to the arrangement of a consulting room.

It is impossible to deal *seriatim* with the individual sections. It must suffice to say that as a manual on venereal disease the book contains in 170 pages most of the information that is likely to be sought by the practitioner.

One error appears to have crept in. On page 22 the rash of secondary syphilis is described as being asymmetrical. This is surely not in accordance with the characteristics of such a rash, as usually described.

Treatment is described with lucidity and thoroughness. The minor details of technique are not omitted.

Altogether this is a work which may be recommended with confidence as one which the practitioner would do well to obtain.

Diseases of the Skin. By ROBERT W. MACKENNA, M.A., M.D. First edition. Published by Messrs. Baillière, Tindall & Cox, London. Price 21*s*.

A BOOK such as this, avowedly for the use of students and practitioners, has two conditions to fulfil. The first is to enable the reader to diagnose the skin condition easily and quickly; the second to give a short intelligible account of the treatment, with as little discursive matter as possible. The question of diagnosis has been treated in the best way possible, by the inclusion of 166 original photographs, all of them excellent. The one way to learn to distinguish the various skin-lesions is to attend skin out-patients; the next best way is to examine good, typical photographs.

The treatment is also dealt with simply and efficiently. Only the commoner skin diseases have been treated fully, the rarer kinds having been mentioned in smaller type, and this again is as it should be for the purposes of a manual. The one criticism that we would advance, as far as students are concerned, is that the number of text-books, absolutely essential to the medical student, is growing and, for a text-book on dermatology the average student will be unwilling to spend a guinea. If he does, however, he will find the money well spent.

A Manual of Practical X-ray Work. By JOHN MUIR, B.Sc., M.B., Ch.B. Third edition. Published by William Heinemann (Medical Books), Ltd. Price 31*s*. 6*d*. net.

BY regulation of the General Medical Council, the study of radiology is now a necessary subject in the curriculum of all medical students seeking a British qualification, and the manual, under consideration, has been revised with the main object of making it a useful students' text-book.

It is divided into two parts. Part I., of seven chapters, is entirely technical in character and describes the various forms and construction of X-ray apparatus. Tubes, sources of supply, high-tension generators and accessory apparatus are all fully described, and chapters are also included on photography, stereoscopic views and the localisation of foreign bodies.

Part II. is given up to diagnosis, the various systems being taken one after the other—the nervous system, respiratory and circulatory systems, the alimentary system and the urinary system.

There are 456 illustrations, generally excellent, and the book should be of great service, not only to students, who would probably only appreciate the diagnostic part of the book, but also to physicians and surgeons and X-ray operators.

Sport.

Lawn Tennis.

BY beating Beddington Park on their ground on Sunday, June 15th, by seven matches to two, Guy's 1st VI. qualified to meet Thames Ditton in the Fifth Round of the Surrey Junior Inter-Club Competition.

Junior Inter-Hospital Cup, 2nd Round.
Guy's Second VI. v.
Royal Dental Hospital First VI.

THIS match was played on Sunday, June 15th, at Shepherd's Bush, and resulted in a win for the Hospital. Result: Eleven matches to three; one match unfinished.

Team:—F. Ratnager, E. Durrand, W. Russell, W. Cohen, E. Timpson, L. Parker Tupling (capt.).

Guy's First VI. v. Sutton.

THIS match was played at Sutton on Wednesday, June 18th, and resulted in a win for the Hospital. Result :—Five matches to two. Two matches were unplayed.

Team :—H. Lewis-Philipps (capt.), E. E. Neser, W. Badenhorst, E. N. Sharpley, W. Boyle, D. Lurie.

Guy's Hospital Golfing Society.
The Staff Challenge Cup.

THE Tournament for the Staff Challenge Cup reached its final stages a fortnight ago, the winners of the semi-finals being F. W. Schofield, who beat G. W. Gathergood and W. G. Porter, who beat H. D. Kendrick.

The final round was played at Chislehurst on Wednesday, June 25, and resulted in a win for Porter by seven up, six to play. Porter thus becomes the holder of the Cup until next spring.

Hospital Information, etc.

Vacant Appointments.

APPLICATIONS to hold the following Appointments may be made in the Medical School Office on any day before One o'clock from the date of this Notice until Tuesday, July 8th, 1924—

4 Dental House Surgeons, 1st August (for 4 months and 1 week).
1 Dental House Surgeon (Children), 1st August (for 4 months and 1 week).
1 Dental House Surgeon (Prosthetic), 1st August (for 4 months and 1 week).
4 Assistant Dental House Surgeons, 1st August (for 4 months).
1 Assistant House Surgeon (Children), 1st August (for 4 months).
4 Clinical Assistants, 1st August (for 4 months).
1 Clinical Assistant (Children), 1st August (for 4 months).

Applicants who have not already done so should leave their signed Photographs in the Office.

T. B. JOHNSTON.

Guy's Hospital, S.E.,
July 1st, 1924.

Papers by Guy's Men.

H. C. Cameron, M.D. Demonstration of Cases (at Guy's Hospital). Proc. Roy. Soc. Med., xvii., 1924. Section for the Study of Disease in Children, p. 27.

G. B. Downing, M.D. (1) Case of a Rare Lingual Condition. (2) Case of Xanthoma.—Rroc. Roy. Soc. Med., xvii., 1924, Sec. of Dermatology, p. 64.

Change of Address.

Miss F. A. Sheldon, from the College of Nursing, 7, Henrietta Street, W.1, to 12, St. Paul's Road, Kersal, Manchester.

G. Dunderdale, 280, Burger Street, Maritzburg, Natal.

W. E. Robinson, M.D., M.R.C.P., 20, Upper Wimpole Street, W.1. Tel. Langham 1664.

Chas. J. Anderson, O.B.E., M.R.C.S., "Coniston," Kei-apple Road, Sea Point, Cape Town, S.A.

Births.

LLOYD.—On the 9th June, 1924, at 19, Kensington Hall Gardens, W.14, to Margaret (née Hopper), wife of Vernon E. Lloyd, M.C., M.B., B.S., M.R.C.S., L.R.C.P.—a daughter.

SANDER.—On June 23rd, 1924, to Gertrude, wife of Eric H. L. Sander, L.D.S., R.C.S.Eng., 7, Oakington Manor Drive, Wembley Hill, a son (Derek Norman).

BURVILL-HOLMES.—On June 11th, 1924, at "Eastcott," Hatfield, Herts., to Doris (née Shorter), the wife of L. Burvill-Holmes, L.M.S.S.A., a son.

Marriage.

HUMAN—KELLY.—On June 21st, 1924, at Registry Office, Princes Row, J. Urban Human to Jessie, daughter of the Rev. J. Craig Kelly, of Woburn, Beds.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *July 19th, 1924.* *Number 940*

PASSIM

ONE day, should we ever feel sufficiently depressed, and that contingency is at the moment very remote, we shall write for our attentive readers an article on "How to succeed." Let us say at once that we do not ourselves particularly wish to succeed, finding the great privilege of being alive at all sufficiently alluring, but no doubt there are many who do and them we admire while finding no cause for envy. Success is easy of attainment, if it be pursued with sufficient vigour, and one of its royal roads of approach is, to state it very gently, the path of boldness.

The genial Officials of the Hospital Cricket Club are on the way to well-merited success. They have been bold, almost to a man. Throughout the present season we have spent a great deal of time importuning our friends and turning them sometimes into enemies with the repeated question, "Are you or have you a cricketing official?" We have written notes to the elusive Honorary Secretary, have published letters in the GAZETTE and have even tried to play the game ourselves, in order to get the bare result of at least one match for publication to the large number of supporters of the Hospital Eleven. And all without avail. Despairing, we had almost decided to write appreciations of some of our more famous footballers, when, without a word of warning, the following letter arrived:—

"Dear Mr. Editor,—Herewith accounts of some of our cricket matches. I suggest that you might make your next number a Special Cricket Number. Yours sincerely, etc."

The sincerity of this suggestion is undoubted and the complete fearlessness of it augurs well for the team in the Inter-Hospital Cup Final.

This then is a "Special Cricket Number." It contains accounts of many matches, including the first three rounds of the Inter-Hospital Competition and it is about the final of that competition that we are asked to write.

Many years ago, in the year 1912, this Inter-Hospital Contest was won by Guy's and there may or may not be truth in the statement that never before or since have there been such chirpings of the Colonnade crickets. It was a year, memorable to all true Guy's men; second only in importance to 1725. The enemy on that occasion were routed, their stumps were shattered. The next year the Cup was lost again, and all attempts to bring it back have failed. This was a state of affairs, that was rapidly becoming impossible. That the Guy's team should fail to bring it back year after year was too laughable; they decided that its long absence from home must end. So this year the team have taken the game seriously. All except a few have had to struggle hard to get into it and practice at the nets has become an almost daily occurrence. By this means they have worked their way into the final and on the 24th and 25th of this month will play St. Thomas's at Chiswick. Both teams are unusually strong and the game is certain to be won and lost by a very small margin of runs. St. Thomas's, by winning the toss, have the advantage of playing on their own ground, but this advantage we hope will be well outweighed by the crowd of enthusiastic supporters from Guy's. Actual support from spectators means a great deal to any Hospital team and if only the Hospital will send a crowd down to Chiswick, as it does in the football season to Honor Oak

Park and Richmond, victory should be assured. This is the first time for 12 years that we have had so good a chance of retrieving this Inter-Hospital Cup and we appeal confidently to past and present Guy's men to go down on either or both of the days to cheer our team on to victory.

CRICKET, and this is the "Special Cricket Number," is of all games the most admirable. Where was there ever found a cricketer, who did not possess all the other virtues? So highly was the game viewed by the moralists that it became an everyday phrase to say of an action that was unworthy or mean that it was not cricket. To play for one's side was to do all that could be expected of humanity, which is notoriously sinful, and we more than half suspect that the enviable phrase "a white man" was originally "a white-flannelled man." It is particularly fortunate at this time that every Guy's man, the world over, has at one time or another played cricket. He has learned to play for his side, and however long or far he is separated from it, that side is always the one that remains his dearest memory. Memory conjures up for him scenes, where his happiest days were spent, where all men played the game and where to make a doubtful appeal was to lose caste.

And so we now, in this "Special Cricket Number," bring to the notice of all Guy's men and women

The Hospital Bicentenary Appeal.

In 1722, Thomas Guy founded our Hospital "for the cure of sick and impotent persons," and on January 6th, 1725, the first patients were admitted to the wards. Originally opened "for the reception of 400 poor sick persons or upwards, labouring under any distempers, infirmities or disorders thought capable of relief by physick or surgery," it has gone on increasing in size, scope and usefulness until it has become the magnificent and beneficent institution that it is to-day. Two hundred years ago next January, Guy's Hospital became known to the Borough; to-day its sons and its fame have spread throughout the entire world. It is an epoch in our career that calls for commemoration and the Court of Governors, with the gracious approval of our President, His Royal Highness The Prince of Wales, have resolved to issue a Bicentenary Appeal, that by January 6th of next year the Hospital and the Medical School may be free from debt. In this they are aiming high, but they do so with the knowledge that they will be supported by each member of the huge fraternity of Guy's men and women. The sum required is £200,000 and with the loyal support that the appeal is bound to receive, it will be collected. The Press have promised to support it in the most whole-hearted manner and already, in the leading newspapers, series of articles have begun to appear, giving their readers an account of the work of healing and research that is being carried out here—work that is unknown to the greater part of the public. For this splendid and generous help the Hospital is unfeignedly grateful. It is by means of this help that a large part of the money will be obtained. But it is to its own sons and daughters that the Hospital looks for its most earnest support. Everyone of them can do something, however small, to help the Hospital to start its third century of work free from the hovering shadow of debt. Any particulars can be obtained from Dr. Eric Wornum, Secretary to the Treasurer, at the Counting House, Guy's Hospital and all cheques should be made payable and addressed to the Treasurer.

WE append two letters, one from our President to The Treasurer, the other from the Treasurer to the Press; May the success, for which His Royal Highness wishes, be speedily attained so that freed from financial anxiety and unhindered by the shackles of debt, we may go on to be more and more worthy of our great name and the men, who have given it its renown.

H.R.H. The Prince of Wales, the President of the Hospital, has addressed the following letter to the Treasurer:—

Dear Mr. Whitbread,

I understand that the appeal on behalf of Guy's Hospital, discussed at the Court of Governors, at which I presided on June 5th, is shortly to be launched.

I should like to take the opportunity of repeating to you now what I then said to the Court—that, as President of the Hospital, I wish the appeal every possible success and sincerely trust that it may result in the debt being cleared off.

Yours Very Truly,
EDWARD P.

The Press have received the following letter from the Treasurer of the Hospital:—

Sir,

On January 6th, 1925, Guy's Hospital will have been open for exactly two hundred years. It was founded by Thomas Guy in 1725, and on January 6th of that year—a few days after his death, 60 patients were admitted to its wards.

It is situated in one of the very poorest parts of London, where there are few large employers and where labour itself is to a great extent casual in character.

The approaching bicentenary of this Hosmital finds us deeply in debt, and the Governors, with the sanction and approval of our Royal President, His Royal Highness The Prince of Wales, propose to make a determined effort to free the Hospital from this burden of debt before the actual date of the Bicentenary. It is for this reason, Sir, that I am approaching you, and through you the charitable public, to ask for assistance in this great work. Though Guy's Hospital has only once before in its history, in 1896, made a great appeal to the Public for financial assistance, I want to make it clear that it is by no means a wealthy Hospital. The total assured income which the Hospital receives from its endowments is only £66,000, and the expenditure last year was £154,000. The Hospital is therefore dependent upon sources other than its endowments to the extent of over £80,000 per annum.

From 1896 to the end of the Great War Guy's Hospital managed to pay its way, but owing to the immense increase in the cost of everything since then, we have incurred a deficit of £52,000 for maintenance. We are also in debt to Capital Account to the extent of £100,000 owing to expenditure which had to be incurred for the additional accommodation for Nurses and a new and enlarged department of Massage and Treatment by X-rays and other forms of Electricity; also for the extension of the Central Station for heating the Hospital; for the production of electricity; for lighting the Hospital and providing power for the laundry and refrigerating apparatus, lifts, etc. Electricity and Laundry are thus provided for the Hospital at a cost far below that which would have to be paid if these services were provided by outside Agencies.

I will not enlarge upon the claims of the Hospital for special support beyond bringing to your notice the fact that Guy's Hospital is one of the four largest London Hospitals, that it has the largest Out-Patient Department in London, that its activities cover an enormous area and are national and imperial in their scope. Those who are admitted are mostly far too poor to contribute for their maintenance and treatment, however willing they are to do so. In this connection I should like to quote from a speech by H.R.H. The Prince of Wales at a recent Court of Governors:—

"Notwithstanding the liberal endowment of Thomas Guy, this is not a wealthy hospital in these days; only about 43 per cent. of the income required is derived from these endowments—the remaining 57 per cent. has to be found from other sources. Situated as it is in one of the poorest districts in London, in which most of the labour is of a casual nature, where there are very few large employers of labour, it cannot rely upon adequate local support; it must depend very largely on the generosity of its friends in the general community.

In spite of this, the Hospital has never made repeated calls upon the public for maintenance—a policy which was endorsed by my Grandfather, who inaugurated the Re-Endowment Fund in 1896. The aim of that fund was to collect half a million pounds for the re-endowment of the Hospital. That ideal has been very nearly attained, as the Fund now stands at £473,000, and, had it not been for the war, its purpose would have been achieved—the Hospital's income, together with regular grants from other sources, would have enabled it not only to carry out its work free of debt, but to complete various building schemes which have now proved so expensive. I need make no apology for emphasizing, as I have done before, the proved value of voluntary hospitals. Their position to-day has been founded and is maintained by high ideals of public service, expressed in gifts or in self-denying labours. In their foremost rank stands Guy's, and the Governors commend its present needs to that spirit of true generosity which has made possible the achievements of the past.

That these needs can only be met by outside help from our more wealthy fellow-citizens, will, I think, be evident to anyone who has read the Treasurer's memorandum.

The working classes, it is true, are now taking a great interest in Hospitals and are subscribing with splendid generosity; but they cannot of themselves pay for the entire cost of their treatment, let alone for the promotion of up to date scientific research, which is so essential to-day. That is why this appeal is necessary; we do not make it lightly, but we make it with full confidence that those of our countrymen who can afford to, will not fail to give what help they can to an institution with such a record as Guy's."

I am, therefore, Sir, appealing to you and through you to those well endowed with this world's goods to assist us to raise the sum of £200,000 before January 6th next year—£160,000 to free the Hospital from its burden of debt and £40,000 to do the same for the Medical School, in order that without financial anxiety in the future it may maintain the splendid traditions of Astley Cooper, Bright, Addison, and Wilks, to mention only one or two of its famous teachers.

Believe me,

Yours faithfully,

FRANCIS P. WHITBREAD,

Treasurer.

Obituary.

EDGAR ELLIOTT, who died on July 4th, was a link in a chain of Guy's men extending back to 1860, for he married the daughter of John William Hayward who entered the hospital in that year and died only last year after practising in Whitstable for 50 years. His eldest son E. L. Elliott was also at Guy's—1903—11.

Edgar Elliott qualified in 1882 and practised at Bromsgrove for some 12 years, and later for 15 years at Sevenoaks. He retired in 1916 owing to failing health which gradually became more pronounced until he was finally obliged to take to his bed in the early months of this year.

Guy's Hospital Medical School.

The following Scholarship Awards have now been made :—

War Memorial Scholarship in Arts—
John William Crow, Charterhouse, £200.

Open Scholarship in Arts—
John Widdicombe Oliver, Felsted, £100.

Scholarships in Junior Science—
Confined Scholarship—
William David Glynn Jones, Sexey's School, Bruton, and Guy's Hospital Medical School, £100.

Open Scholarship—
William Louis Murray Bigby, Cranleigh, and Guy's Hospital Medical School; Walter Patrick Roe, University College School, and Guy's Hospital Medical School, equal £50 each.

Guy's Hospital Dental School.

War Memorial Scholarship in Arts—
Charles Gaffney Baker, Christ's Hospital; John Clifton Read, Brighton College; equal £20 per annum each for four years.

Science Scholarship—
David Joshua Bull, Hackney Downs School, and Guy's Hospital Medical School, £40 per annum for 3¾ years.

T. B. JOHNSTON, Dean.

July 11th, 1924.

Guy's Hospital Reports.

NEW student subscribers are able to obtain the "Guy's Hospital Reports" for this year at the reduced rate of £1 10s. A few back volumes are available and these may be obtained at the following low charges:—

1 Extra Volume, £1.
2 Extra Volumes, £1 15s.
3 Extra Volumes, £2 2s.

The above charges are only allowed to unqualified students. Qualified men are expected to subscribe £2 2s. for the current volume. Subscriptions, and any enquiries respecting past volumes, can be sent to the Wills Librarian, Guy's Hospital.

Publications Received.

The University College Magazine, The Hospital Gazette, The King's College Review, The Nursing Times, The Isis, The British Medical Journal, The St. Mary's Hospital Gazette, The Burma Medical Times, The M.S. Journal, The Northerner, The Bedford College Union Magazine, The Medical Review, The Hospital and Health Review, The Gong, The Royal Dental Hospital Magazine, The Prescriber, The Sydney University Medical Journal, The Medical Journal of South Africa, The Indian Medical Record, The St. Thomas's Hospital Gazette, The Architectural Association's Journal, The Cancer Journal, The Manchester University Medical School Gazette, The Medico-Surgical Journal of the Tropics, The Dental Record, The Serpent, The St. Bartholomew's Hospital Journal, M.A.B., The Middlesex Hospital Journ.

Anorexia.

Clinical Lecture by Dr. J. A. RYLE.

GENTLEMEN,—There are few expressions of physical and mental well-being more widely accepted and more generally appreciated than a good appetite. Conversely it will be conceded that few subjective symptoms, apart from actual pain, more promptly perturb the individual and attract the comment of his household and his friends than a failure of appetite. In trying to assess the progress or otherwise of sick persons under our care the continued suppression or the return of the desire for food are indices upon which we place daily reliance, and the question, "How is he taking?" so frequently put to the nurse, signifies the importance which we almost automatically attach to appetite as a sign of health and to loss of appetite as a symptom of disease. In our own personal experiences of ill-health we recognise with each trivial febrile ailment that an abolition of our interest in meals constitutes a very real part of the malaise, and even in those lesser states of impaired fitness which we ascribe to periods of overwork or to some access of fatigues and worries a diminished enjoyment of food is a familiar manifestation.

We thus observe in the ordinary course of our life and labours all gradations of anorexia, or "the loss of the desire for food." Its slightest forms are represented by those minor shades of disinclination to which I have just referred. At the opposite end of the scale we find anorexia in its gravest degree occurring as a symptom of many chronic diseases and accompanying the active phases of acute fevers. In illnesses of intermediate severity every intermediate grade of anorexia may be encountered. It would therefore seem that appetite is an important and even a delicate physical response and that we should endeavour to possess some understanding of its mechanism.

The subject is one in respect of which the physiologist and the physician touch common ground. Appetite is so essentially a manifestation of normal bodily health that we should expect the physiologist to provide us with valuable information concerning it. It is part of my purpose to show you that the clinical study of anorexia may also help to illuminate the problem for the physiologist.

Let us consider in what manner we should set about a combined investigation of the subject. Our researches might primarily be arranged into three series. The first would include a collection of data in regard to the sensation of appetite as experienced in ourselves and the factors concerned in improving or diminishing it in times of health. I would ask you, as an exercise in observation (not an easy one, I admit), to consider for yourselves, and to note down your own impressions of the appetite-sensation, where it is felt, how far it is a different sensation from hunger, by what events it may be modified, and so forth. The second series would be of a parallel kind and would consist in the collection of data relating to the sensation of loss of appetite as a symptom of disease, the factors bringing about that loss and the factors concerned in restoring it. With some of these points I shall shortly deal. The third series would fall within the province of the experimental physiologist and would include the collection of data in regard to the motor, secretory, metabolic, and nervous changes with which the desire for food or loss of the desire appear to be directly or indirectly associated. The experiments might be conducted with animal or human subjects or with both.

Much has of course already been written around this problem, and as my purpose in sketching such a scheme of investigation is merely to prepare the ground for a discussion of the clinical significance of anorexia, it need not be further elaborated here. I must, however, touch briefly upon the information available and it is convenient to refer to it as though it had been accumulated somewhat in the manner outlined.

First of all what do we understand by appetite and how far is it indentical with or different from hunger?

It is best characterised, I think, as a desire or readiness for food, and it is customarily regarded as a pleasant sensation. Hunger on the other hand is unpleasant, an emptiness or craving resulting from an undue abstention from food, at times akin to nausea, and at times even a painful sensation. It is possible to experience appetite without being hungry and in health we experience it notwithstanding that our meals are frequent and adequate.

With the aid of a good soup, a dainty morsel or a glass of wine it is possible to conjure up an appetite where none at first existed, or with a few mouthfuls of food to augment an appetite already present. Appetite is a daily experience. In our over-fed and over-civilised state, however, many of us never experience real hunger from one year's end to the other. Hunger discomforts have a recurring or intermittent quality. Appetite is more sustained. There are thus essential differences between the two sensations. Nevertheless the theories of appetite which have been advanced include the suggestion that it is merely a mild degree of hunger.

Beaumont,[1] whose opinion we must greatly respect, in virtue of his wonderfully careful and intimate studies of gastric function in the case of Alexis St. Martin, wrote as follows: "Appetite and hunger belong to the same class of symptom; they differ only in degree," and gave it as his opinion that hunger was due to distension of the gastric vessels or secretory glands. It is more usual nowadays to consider appetite as mainly due to a memory process connected with pleasurable tastes, smells, sights and even sounds, and for this theory there is a considerable bulk of evidence in both animal and human behaviour. In different animals different senses assume the important role. For the dog his highly-developed sense of smell is the more important and his appetite probably depends largely on memories of previous entrancing odours. With the cat visual impressions are the stronger and of greater biological importance.

Goodall[2] reported the case of a kitten which readily lapped Lotio Plumbi (thinking it was milk), but refused milk itself out of a blue saucer, to such an extent had visual associations influenced her interest in food. With man and particularly with civilised man it has become customary to pander to many or all of the special senses at meal times. Pleasant tastes, pleasant aromas, a table daintily arranged, the dinner bell or the clink of spoons or glasses, and even the tactile sensory comforts of evening dress and clean napery, have all become inextricably associated with the idea of food, and singly or together are capable of promoting or enhancing appetite.

Cannon[3] says "Appetite is related to previous sensations of the taste and smell of food. Sensory associations, delightful or disgusting, determine the appetite for any edible substance, and either memory or present stimulation can arouse the desire."

And yet it must, I believe, be concluded that these memories in turn evoke some local response. We know from Pawlow's experiments that a local secretory response to the more direct appetite stimuli does occur, and it is not improbable that similar physical responses may be evoked by food-memories.

While contending that appetite is a complex and largely a psychic phenomenon modern observers have claimed a much more special character for the sensation of hunger, which Cannon and Washbourn[3] and Carlson[4] have shown by the most careful experiments to be associated with and actually due to peristaltic contractions of the stomach. These they graphically recorded with the aid of rubber balloons and correlated with the hunger sensations. They admit, of course, that other sensations such as faintness and weakness may accompany prolonged hunger, but regard the actual hunger-discomfort as a gastric phenomenon. Is there any good evidence that appetite has also a local manifestation or a local cause? When asked to describe and locate the sensation of appetite people will provide the most variable answers, but there is a general tendency to refer it to the pharynx, the œsophagus or the epigastric zone, and this reference seems to me to indicate that as in hunger or the craving for food, so in appetite or the readiness for food, there is a local process concerned. Subjective experience and clinical observation suggest that the local process may be associated with the tonic activity of the upper alimentary tract, much as hunger is associated with peristaltic activity; and that just as general well-being and preparedness for physical effort is associated in idea and fact with a favourable state of tonus and adaptability in the skeletal muscles, so too digestive well-being and preparedness for gastric effort is associated with a favourable state of what might be termed "anticipatory tonus" in the gastric musculature. Moreover, there is an undoubted association between the two states —that of general physical well-being and that of local digestive well-being. We know that nothing is more conducive to a good appetite than a healthy open-air holiday with plenty of exercise or the procedure of training for an athletic contest.

In support of the view that appetite is partly a local process connected with visceral tonus we have also clinical and radiographic observations of gastric function in certain general and gastric diseases associated with a poor or absent appetite. In conditions such as the de-

bility due to prolonged fevers or accompanying tuberculosis and visceroptosis gastric hypotonus is a frequent finding. In gastric carcinomata which so infiltrate the wall of the stomach as to render it incapable of normal tonic and peristaltic activity anorexia is present almost more constantly and in more pronounced degree than in any other malady, and as a symptom of the disease itself is actually more constant than pain.

This fact that the most complete loss of appetite occurs in some diseases in which there is no impairment of the mental faculties and no interference with the special senses is an argument in favour of the actual appreciation of appetite being dependent on a local phenomenon.

If we wished experimentally to show a relationship between gastric tonus and the sensation of appetite we should have to evolve a method of rendering the wall of the stomach rigid and incapable of tonic contraction and adaptation, without modifying the other functions of the body, without producing fever or the cachexia of malignant disease and without inducing the debility which arises from pain or other physical or mental discomforts. Very occasionally Nature performs this experiment for us by means of the disease which has been variously described as linitis plastica, leather-bottle stomach, and cirrhosis of the stomach. This condition is now regarded as cancerous, but in a small proportion of cases it would seem that patients may live for months or even for a period of years without the development of any severe pain and without grave cachexia or dissemination of metastases. A very profound loss of appetite may however be present.

I have recently seen such a case. A man in the forties had complained for two years of complete loss of appetite. He was leading throughout this period a most active life, both physically and mentally; he played games with vigour, but no measures which he could adopt and no treatment prescribed produced the slightest amelioration of his symptom. He did not experience pain, and his loss of weight was not more than would be accounted for by his diminished intake of food. On clinical and radiographic evidence a diagnosis of leather-bottle stomach was suggested and was later confirmed at operation.

If you will examine these specimens of leather-bottle stomach from the museum you will realise how the sensibility of the organ—which Hurst and others have shown to be associated with modifications of the intravisceral tension—must be impaired by the general rigidity of its wall. As there is often no obstruction at any point pain need not necessarily be a symptom of this condition, but hunger, which depends on peristaltic activity and appetite, which I believe to be in part an expression of gastric tonus, must both be inhibited or abolished.

Other conditions in which there is local damage to the stomach-wall with loss of appetite include pyloric stenosis when the stage of atonic dilation has been reached, and alcoholic gastritis. In the former tonus is obviously impaired. In the latter, although secretion and motility are deranged, the whole economy has been so much influenced by the prolonged poisoning that it would not be fair to assume that the anorexia was a direct expression of the local gastric disease alone.

We must also enquire whether secretory abnormalities have any influence on the sensation of appetite. There is, as a matter of fact, little evidence that the secretory behaviour of the stomach *per se* in any way modifies its sensations. Free hydrochloric acid may be present in excess of the average or absent altogether in both healthy and unhealthy individuals without there being any reference of discomforts to the stomach and without appreciable modifications of hunger or appetite.

Undoubtedly there is often a scanty or even an absent secretion in cases in which anorexia is present, as for instance in cancer and gastritis, but we have better reasons for incriminating the impaired tonus and motility than the diminished secretion.

Beaumont[1] showed that a very inflamed condition of the gastric mucosa with almost complete suppression of secretion might follow an alcoholic bout in the case of Alexis St. Martin without the production of any subjective symptoms.

Assuming that appetite may be in part an expression of healthy gastric tonus and that it is at least a fair statement to say that impaired tonus and impaired appetite occur together, have we any evidence that hypertonus is accompanied by increased appetite?

In many cases of duodenal ulcer, in which the stomach is demonstrably hypertonic, appetite is exaggerated, although for fear of aggravating their pain the patients may curtail

their meals. It is also stated that the increased appetite and hunger of diabetes may be accompanied by the radiographic features of gastric hypertonus.

Briefly to summarise the present state of our knowledge in regard to appetite, I think we may say that *the sensation is in part a memory process and in part a local manifestation of efficient alimentary tonus reflexly induced by the memory stimulus, or by the more direct stimuli of tasting or smelling food, or by some combination of these several factors.*

Such a view helps to explain the close similarity between the appetite and hunger sensations as well as their essential differences, for tonic and peristaltic activity are kindred phenomena though not synonymous.

Let us next consider the things which in health may modify appetite. Without doubt we shall agree that fresh air, exercise, cold weather, and a happy mind are amongst the most important adjuvants, all being calculated to encourage an active and well-balanced metabolism. Conversely an indoor, sedentary life and a heated atmosphere, or a worried or overworked mind are calculated to impair appetite, and in many cases actually do produce such a loss of appetite and general well-being as to amount to real ill-health. The effect of certain emotions on the appetite is pronounced. Falling in love, or a great bereavement, or a grave domestic or business anxiety may for a time determine a real anorexia. Of these states, however, which come to trouble otherwise sound and healthy mortals, the majority are temporary and recoverable.

In reviewing anorexia as a symptom of established disease, some classification becomes desirable. The following is, I think, as convenient as any:—

CAUSES OF ANOREXIA.

1. Acute febrile illnesses.
2. Chronic infective illnesses, especially tuberculosis.
3. Other chronic debilitating diseases, especially malignant disease.
4. Local disease of the stomach, especially carcinoma and chronic gastritis.
5. Mental and emotional derangements, neurasthenic states, nervous dyspeptic states and anorexia nervosa.

Having drawn your attention to the frequency of lost appetite as a symptom in the mild as well as the graver types of disease it might appear superfluous to compile such a special and limited list of causes. My reason for so doing is that in the types of disease included in this list, anorexia is a symptom of special importance from the diagnostic or prognostic point of view. In some instances, again, the treatment of the symptom itself may play a part in modifying the course of the disease, or even in producing a cure.

It is clearly recognised that in the acute febrile illnesses there is a general arrest of many normal physiological processes. The skeletal muscles become weak and flaccid; the secretions of the salivary, gastric and other glands are diminished; the urinary output falls. The tissues are given over to measures of defence, and digestion and assimilation, except of water, are largely in abeyance. It is not surprising that the gastric musculature like the skeletal musculature should suffer fatigue and loss of tone and that the clouded senses should cease to be responsive to the stimulus even of the most carefully chosen diets. Thirst may be great, but the lack of appetite for solid food indicates the unreadiness of the stomach for ordinary digestive efforts. And so it is that we order the lightest forms of diet and give food principally in fluid form. The moment, however, the infection is overcome we find a change in the sensations and inclinations of the patient. Very early in convalescence from pneumonia and still more after typhoid fever, the appetite improves and may even become voracious. I have seen Belgian refugees convalescent from typhoid fever (notwithstanding that they had been well cared for during the acute stages) literally falling on their food like wolves. The muscles, striated and plain, no longer poisoned, begin to resume their tone and the depleted tissues call out for nourishment. When appetite returns, however serious the illness may have been and however accurately or otherwise our other observations may seem to record improvement, we generally know that convalescence has begun. It is thus chiefly as an index of progress that we watch the appetite of our patients with acute fevers.

In chronic insidious infections such as pulmonary tuberculosis, loss of appetite may be of diagnostic as well as prognostic value. It is quite frequently an early symptom and when we find a young adult with a tendency to easy fatigue, a waning appetite, a slight loss of weight—without other adequate explanation—we are always at pains to exclude or to discover an early pulmonary lesion. In the more active phases of the disease anorexia is a well-recognised symptom. Both in the early and

later stages there is a special tendency to loss of the breakfast appetite. When the night has been disturbed by sweats and the morning by cough and expectoration this is readily understandable; it is not quite so easily explained in the incipient or the semi-quiescent cases, but I have supposed that it expresses the toxic-fatigue state following the evening auto-inoculation of the previous day. Those who work in sanatoria are familiar with the sometimes remarkable increase in the intake of food which is registered in those cases which are doing well from the point of view of general response to their infection; this may be long before the physical signs point to appreciable local progress. Improvement of appetite goes hand in hand with stabilisation of temperature and gaining weight. In a disease in which good nourishment is so vital it is obviously of the first importance to encourage appetite in every way, and in the good sanatorium the quality, preparation and serving of the patients' food are matters for very special attention. Many sanatoria, even now, are not sufficiently alive to the importance of a perfected cuisine. In the late phases of disseminating malignant growth loss of appetite is almost the rule wherever the primary disease may have been, but the alimentary growths are more apt to promote the symptom. In carcinoma ventriculi anorexia is, as I have mentioned, the most constant symptom and according to Brinton[5] is present in 85 per cent. of cases. It may develop quite early in the disease (one patient told me that his earliest symptom was loss of appetite for bread) and I am inclined to think its degree bears a definite relationship to the extent of stomach wall involved. In every dyspepsia, but especially those which originate during or after middle life, you should enquire particularly about the appetite. Such enquiry may occasionally help to differentiate growth from chronic ulcer. Generally in duodenal ulcer the appetite is good; in large lesser curvature ulcers and the mechanical obstructions resulting from scarring, the appetite may become impaired; but it is rare in any of these conditions to meet with the complete abolition of appetite peculiar to cancer, and it is, as a rule, only in the cancer cases that loss of appetite is voluntarily mentioned by the patient as a leading feature of his malady.

In chronic alcoholism poor appetite is again a familiar manifestation. It is most noticeable in the morning and in bad cases may be associated with the equally familiar morning nausea, retching and vomiting. There may be a very rapid recovery of appetite when abstinence is insisted upon and the gastritis is treated by lavage or other suitable measures.

Some degree of anorexia is common in neurasthenia. By neurasthenia we should properly understand a true condition of nervous exhaustion consequent upon physical or mental fatigues, alimentary or other intoxications, or upon combinations of these. Having regard for the general loss of vitality and "tone" in these cases, the symptom is one which we should expect. It may be an important one to treat, for the vicious circle of fatigue, loss of appetite, undernutrition and consequently more fatigue may to some extent be broken by careful attention to the dietary. Cold beef appearing for the third day in succession may even discourage the hunter with his proverbial appetite, but for the limp and weary neurasthenic it can only buttress the misery of his existence. On the other hand, a dainty repast of small and well-cooked viands may do real physical good and help to restore a little of the joy of living or at least the will to recover it.

Needless to say it is a small part of the treatment, but in a complaint for which there is no panacea it is one of the many small parts which we cannot afford to neglect.

Among the writings of Sir William Gull[6] there are few more interesting than that which deals with the disease which he called Anorexia Nervosa. We are accustomed to think of the functional nervous diseases, harassing though they often are both to their victims and their physicians, as seldom becoming actually dangerous to life. Here, however, is one which may lead to death from starvation or to such degrees of emaciation as to recall the cruellest effects of war conditions or of famine. When we witness our first advanced case of anorexia nervosa it may be impossible to believe that the sufferer has no physical malady, and we are very properly anxious to discover signs of tuberculosis, diabetes or other organic wasting disease. The subjects are mostly young women, but young men are not immune. There may be a personal or family history of emotional instability. We find that there has been for some time a general failure of appetite or at any rate a refusal to eat, often without any other striking subjective symptom. Various diagnoses will probably already have been suggested, and at the present day psycho-analytic methods may have been employed with indif-

ferent success or even with aggravation of the trouble. An origin for the disease may be found in an unhappy love affair; in some fixed idea of supposed sin; in some queer, morbid craving for sympathy. With close supervision and a stern insistence on the consumption of food in appropriate form and quantity, improvement can often be initiated and maintained. The cases are rare. The success which may attend their resurrection often seems little short of miraculous. In one case under the care of a colleague which I had the opportunity of seeing, it is interesting to record that the stomach before the commencement of the treatment was radiographically examined and seen to be peculiarly large and atonic. The patient made a complete recovery. It was judged to be unwise to repeat any investigations so that we do not know whether gastric volume and tonus became normal again. It is not improbable, however, that the local appearances in the first instance were evidence of a genuine atony induced by the prolonged mental and nervous depression.

Sir James Goodhart[7] in his lectures on the Common Neuroses suggests that the term anorexia nervosa might also be extended to those much more numerous sufferers from nervous types of dyspepsia. These patients commonly complain that they cannot eat this and they cannot eat that—I had one who had practically reduced his diet to bread crumbs, lemon juice and tomatoes! They number among their ranks those sparrow-like women with sparrow's appetites whom some of you must have seen or will shortly see when you embark on practice. Personally I should prefer to keep the name anorexia nervosa for the disease more clearly defined by Gull. Say that these others have a nervous anorexia, if you like, but I think you will agree that they seldom show signs of dying. Far from it. They will hop into your consulting room and twitter forth their woes; they will neither gain weight nor appreciably lose it; they will try many treatments and ask for more. If you can, by some combination of severity and tact persuade them to eat larger amounts of more ordinary food you may occasionally do them and their relations and yourselves a real service. Their dyspepsias and anorexias are, I believe, more often due to or encouraged by undernutrition than by any of the supposedly noxious foodstuffs or other factors which they themselves incriminate. The neurotic, like the neurasthenic, tends to eat too little, and as he or she is commonly caught in a circle of evils, many of them hard for us to grasp, it is a comfort to have one point at which a rational attempt may be made to break the spell.

Some of you will have heard Dr. Cameron speak of yet another variety of functional anorexia. It affects the nervous children of anxious-minded parents, and is often largely to be attributed to the reputation for poor eating which the parents have repeatedly given them and conversed about in their presence. Being more plastic than adults and very suggestible, it is possible, with parental co-operation, to get them to eat well again by a simple process of judicious neglect combined with the positive assurance afforded by telling others in their presence what good appetites the little darlings have. It is most important, however, to remember that loss of appetite in children may be an early symptom of tuberculosis just as much as in adults, and that tuberculosis even more readily escapes detection during these tender years.

I have said enough of this solitary and very common symptom, but the tedium of my remarks may possibly be compensated for if you will remember in your case-taking never to neglect to enquire about Appetite. Like sleep and the body-weight it is one of those fundamental things expressing bodily fitness or unfitness which the patient himself or his relatives can in some degree measure and describe. His sleep can be measured in hours, his weight in pounds, his appetite by the "calories" which he can or cannot consume. You may have to check his measurements, but often his estimates will be of real value in determining your diagnosis, or in guiding your prognosis and your treatment.

REFERENCES.

1. Beaumont. The Physiology of Digestion, with Experiments on the Gastric Juice. (Plattsburg, 1833).
2. Goodall. Appetite: An attempted Analysis of the Psychic Factor. *Brit. Med. Journ.*, ii., 1908, p. 586.
3. Cannon and Washburn. An Explanation of Hunger. *American Journal of Physiol.*, xxix., 1912, p. 309.
4. Carlson. The Control of Hunger in Health and Disease. University of Chicago Press, 1916.
5. Brinton. Lectures on Diseases of the Stomach. London, John Churchill & Son, 1864.
6. Gull. Anorexia Nervosa. Clinical Society's Transactions, vii., 1874, p. 22.
7. Goodhart. On Common Neuroses or the Neurotic Element in Disease and its Rational Treatment. London, H. K. Lewis, 1894.

The Light Side of a M.O.'s Life in the Army.

By FRANCIS HEATHERLEY, F.R.C.S.

(*Concluded*).

You will find that besides straight forward medical and surgical cases the men who have nothing worth mentioning the matter with them may be classed into four groups:—

1. The man anxious about something he has noticed about himself and who, finding his fears are groundless, goes away satisfied by your examination.

2. The man with just as little the matter with him, but with less faith in you. This man is often a potential hypochondriac. This man, if made much of, will run up quite a big bill in civil life and if shown too much sympathy in the army will turn into an unconscious malingerer.

With more experience you will find that will power plays such an important part that it is unsafe to judge a man by appearances.

You will find a man with flat feet, hammer toes or bunions falling out disabled during a route march while another with worse looking feet not only sticks it to the end, but perhaps goes for long walks on Sundays for his own pleasure.

Besides encouraging them to persevere you will greatly help foot cases by giving them a 5 per cent. Formalin lotion for hardening the skin.

In young lads vague pains in the foot and leg are often due to the arch giving way. Besides the weight of their equipment, their own increase due to good feeding, may produce it temporarily.

Try and get such a lad a job as cyclist orderly and at the same time arrange with the gymnasium instructor for a course of special leg exercises.

3. Come the lads who malinger from a sporting desire to score off the M.O. Many lads on first joining are inclined to run wild. They feel that they are now licensed killers not far removed from the pirate dreams of their boyhood and they act up to it.

I remember one lad who hobbled in with a combination of symptoms which testified to an exuberant imagination untramelled by facts. After examining him I told him he had nothing the matter.

He made a piteous appeal that as he could not bear my lightest touch on his skin I could see it was quite impossible for him to put his boots on.

I said that if he were in search of adventure he had better appear on parade barefooted and see what would happen but that boots or no boots that was the only alternative to guard room and an interview with Colonel in the morning. I told him that if he promptly threw up the sponge I would take no further notice of his offence. With a shamefaced grin he pulled on his boots and stalked out amidst the sniggering of his friends.

Another lad was brought into sick parade one morning having just fallen off his horse and strained his back. I ordered massage and dismissedh im with three days light duty.

Apparently his friends outside must have persuaded him to make more of it for afew minutes later the Battery Orderly Corporal put his head in to ask if I would mind seeing this lad again. When he came in I asked him what he wanted and he said he wasn't fit for light duty because he was "spittin' blood." He could not explain why he had not mentioned it before, but it had come on since the fall and he was spitting a lot.

"Very well," I said, "You shall be detained," and I told one of my men to give him a large enamelled bowl with which he was to be put in the detained tent to spit blood till I called to see him, and that in view of this serious complication he was to have no dinner; he was to be kept low, no dinner.

When I visited him at tea time he was low and contrite, for his gums had proved too healthy to yield more than a few drops of blood. I told him that I would let him off this time, but that he would now return to full duty and that if his back troubled him he could have massage when off duty.

4. Come the men who malinger because they are work shy, and who have gained experience under the Workmen's Compensation Act.

It is often easy to tell they are shamming

but your success is not complete unless you can demonstrate it to the crowd.

Once a man in the pink of health turned up on the morning of a route march to say that he was so bad with rheumatism of his shoulders that he could not carry his pack, that the pressure of the equipment not only caused him agony but that he could not raise his hands above his head. I had him stripped to the waist and whilst examining him sympathetically said I was surprised that with evidence of so much rheumatism he had no sciatica; he then admitted he was full of sciatica. I then made him strip altogether and stand facing the wall a little way in front of him. Then under pretence of examining his sciatic nerve I made him place his feet together and bend his body into the horizontal position. Then in prodding his sciatic I gave him a shove which nearly upset him and told him to steady himself against the wall with his hands.

He immediately did so and, pointing to his arms now fully stretched above his head, I asked the others to notice how beautifully he had walked into the trap.

Then I dilated on the subject of the treatment of his complaint for the benefit of any would be imitators. I ordered a capital D in red ink to be put in the disposal column and explained that this would not only entitle him to a private tea in the cells on his return from the route march, but that during the march if anyone fell out he would be entitled to carry the sufferer's pack in addition to his own and that this magic D would also entitle him to pack drill probably for the rest of the month.

The worst cases are the men who have some slight ailment which they can use as a foundation for the superstructure of deceit.

They have come into the army as a business speculation and know all about separation allowances. For this reason they are never so bad as to be inclined to claim their discharge, nor do they hanker after hospital with its stoppage of pay. All they desire is a daily modicum of light duty which they are fully capable of still further lightening.

On the other hand, whilst desirous of remaining on the strength they have no foolish desire to run into danger, so they acquire a wonderful premonition of preparations for a draft and accordingly fall ill or have an accident to tide them over the dangerous days.

The commonest disability and one that has previously in civil life proved a safe investment under the Compensation Act is a badly sprained back. It may have come on during bayonet practice or at physical jerks and the odds are that the man's face will be beery enough to suggest a substratum of fact, but the old hand will betray himself by saying that he doesn't think he's bad enough to be excused all duty, just light duty for a day or two will put him right. He wants to do his little bit. Be sympathetic but firm in resolving not to be that little bit.

I used to tell the man he was really worse than he imagined but that I thought by radical treatment a cure could be hoped for in a week's time, and so he would be detained. He then had to shift his bedding from his own tent, thus probably losing his favourite site well away from the door, to the detention tent and my corporal would see to it that he drank a pint of water one hour before every meal and cheerfully removed from that meal anything rich such as pastry or jam and every afternoon my man Watson, the champion clog dancer of the North would massage his back for twenty minutes, and with a final warning that of course such a thing as a friend bringing him beer from the canteen would lead to trouble for both parties he would be dismissed to his cure which seldom failed to restore him to vigour and suppleness in 48 hours. If this does not succeed a morning course of massage in addition will hasten recovery.

If you turn a deaf ear to appeals for sick leave and the certainty that a respectable bed instead of the damp ground has always effected a cure in the past you will soon find the bad-back merchants going out of business.

Cold water is a very inexpensive remedy even when given by the pint, but massage is your sheet anchor.

I remember being asked once by a neighbouring unit without an M.O. to kindly come over and examine a lad. He had been lying in his tent for a week with a bad back due to falling out of a train when drunk and that although it did not seem much at first they would be glad to shift their responsibility as the lad seemed to be developing paralysis. After examining the lad I had a consultation with Watson and as a result this patient was told that he would be massaged twice daily in future.

The morning after the first lot of massage

my new patient walked over to my sick parade to say that although it nearly killed him it had had a surprisingly good effect and that he was now quite fit for duty.

I owed a great deal of my success to Watson, he was hard working and conscientious and his certainty of touch enabled him, as he said. to go as near breaking a rib as nothing.

Always be ready to oblige the officers of another unit or working party without an M.O. they are always grateful to be relieved of responsibility. You cannot make too many friends in the army. It is always useful to your unit if you have previously managed to lay the A.S.C. under obligation. It is also pleasant some day when in a wet and tight corner to be suddenly recognised by someone in luxury and given a warm welcome on the strength of days gone by.

One of the malingerers who gave me most trouble was a little man with chronic rheumatism of the joints. His particular chum was a man who joined us about the same time, but who gave me little trouble because he was a fool.

The latter came to me, the day after he joined, at sick parade with bronchitis and asthma and had the effrontery to tell me that he had been recently discharged from the army for these complaints, but had managed to pass another doctor by choosing a good day and by saying nothing about his past. I said, "My son, by enlisting again and so soon you show that you know better than the doctors and I shall support you in this. All you will get here is cough lozenges. Make no mistake, this is a service battalion, not a convalescent home, and if as you say you will drop down dead, you have my leave to do so."

The other was much more artful and on several occasions I gave him the benefit of the doubt until one day I caught him walking in a sprightly and smart way with his wife outside the camp when he ought to have been in the detention tent.

After this I kept an eye on him and gave him nothing but M. and D., however bad he might be. My mind was quite made up about him when one afternoon I saw him playing football. Of course as an M. and D. man he was entitled to do this, but it did not fit in with the tale of woe at that morning's sick parade that had failed to melt my heart.

After a time these two beauties, apparently acting in consultation, tried to force my hand. They remained in bed one morning and got the Orderly Corporal to enter their names on the report as too ill to attend sick parade. I seized this opportunity to visit them and return both of them as D. As soon as the asthmatic gentleman became aware of this he dressed and hurried off on parade. But the rheumatic case brazened it out and was eventually carried to the guard room on a stretcher. Now an interesting feature about this case was that he imposed on all his mates.

Even my orderly was a bit doubtful about my judgment. That evening the Provost-Sergeant sent a messenger asking me to call and see the prisoner who was so bad as to object to being put in a cell, so the Sergeant was letting him sit before the fire. My Corporal went down to see what the fresh development might be and hearing that the prisoner desired an aperient, I sent him back with a note for the Sergeant and two number nine pills for the prisoner. This pill has a great reputation in the army as you will find out. There is a legend that a box full dropped down a well was the real cause of the Messina earthquake, and even as a cough cure it has a reputation as the partaker thereof dares not cough. In my note I told the Sergeant that had I desired his prisoner to be kept by the fire I should have said so and that disregard of my orders would lead to trouble.

The next morning during sick parade I was asked to go and see the prisoner in his cell as he was dying. On hearing that it was the prisoner's diagnosis I declined to go but said he could come and see me.

About ten minutes later a mournful procession came along, two police carrying the dying prisoner on a stretcher. As I expected, the dying man had a very good colour, and although apparently insensible his eyelids were tightly screwed up and partly submerged by tears of vexation, and above all his pulse was 76.

Notwithstanding an unsympathetic audience I caused the head end of the stretcher to be put on the door step and the unconscious man pulled forward so that his head hung outside the door, and emptied a big jug of cold water over his head, but without the desired effect.

Now, as I have told you before, it is one thing to be sure that a man is malingering, but victory is not assured unless you can convince his friends.

So in this instance feeling myself at bay, for the black looks surrounding me told of discipline stretched to breaking point, I did a rather unkind thing. In the absence of pepper I dipped a camel's hair brush into the weak formaline bottle and passed it lightly and quickly up each nostril in turn.

The effect was magical, in an instant the corpse became a raging snorting madman, hopping about with his hands to his head, sobbing, cursing and swearing in his agony. The effect on the sympathies of his fellow soldiers was equally good, and a few minutes later he was unsympathetically marched back to the cells.

Not long afterwards, apprised by the laughter of the waiting sick, I hurried to the window in time to see him scampering across the yard to a place behind the barracks followed by his guard with bayonet fixed, who was finding it difficult to keep pace with him in his race against No. 9.

This man never troubled me again and with his last exploit malingering died in this battalion. You will I dare say find that the most troublesome cases are the epileptic and would-be epileptics. The rule in the army, and a very good one it is, is that you cannot recommend a man's discharge for this disability unless you have actually seen him in a fit.

Even the experienced old Company Sergeant Major who says it is a genuine case is generally at fault and when by luck you are in time to witness a fit you will probably find a crowd of willing helpers struggling with a man on the ground who is sobbing, screaming and biting and kicking at random.

The experienced malingerer will generally have a fit when too far away from an M.O. to render his subsequent examination of any value, and his fit will generally be timed to prevent participation in some disliked duty.

One man tried it on once too often.

Once before he had a fit whilst marching to church in the town and was taken in an ambulance to a V.A.D. hospital and made much of. On this occasion he was marching with a detachment coming to be inoculated and had the misfortune to fall down in a fit just as two officers were passing. One of these was a Colonel in the A.M.S. and the poor sufferer either had not noticed or did not recognise that his cap badge meant very considerable medical experience. Anyhow this officer rendered first aid, but this time the journey was on foot and ended in the guard-room and a little note to me came to explain the reasons therefore. I gave instructions that this was to be the procedure in future and he only had one more fit after this.

It was with one of these gentry that I once scored rather effectively. I came across his name on a nominal roll of men recommended by my predecessor for discharge, but as there was no certificate of his having been seen in a fit I struck his name out and heard nothing more of him till a month later. He was a good looking lad of 20, but looking younger, with a constitutional love of romance but a still greater dislike for violent exertion.

His period of quiescence corresponded with his getting a job as waiter in the Officers' Mess. Here he gave great satisfaction as he was quick and intelligent and he took special care of me, but if with an eye to future favours I am afraid that I proved a bad investment. At last he got into the Mess Sergeant's bad books for pilfering and impudence and so paid him out by having a fit when he happened to be shorthanded.

I went across to see him with the Sergeant and found him in bed and unconscious after what was described as a very heavy fit.

I told the Sergeant privately that it was a fake and that I could easily bring him round with a little apomorphia hypodermically, but that it would lead to his vomiting. As the Sergeant said he was short-handed he was quite satisfied for the boy to be left as he wanted him for dinner time.

Next morning I was asked to see him after breakfast as developments had occurred. He was now virtually a prisoner as on the previous day he had, soon after we left, slipped out into the town with another waiter and stayed out until after 11 p.m.

By a strange coincidence he had a fit when the Military Police came to fetch him and his friend, and they would not take him without my seeing him again.

The surprising feature of the second fit was that it had left him absolutely dumb and he vivaciously tried to acquaint me with the fact on his fingers.

I told the Sergeant that if he were short-handed he might be glad of his help in the kitchen as washer-up, as his mutism would be no drawback, but the Sergeant desired no museum specimens so I decided that he should go to our Regimental Hospital as a prisoner and I also directed, in his hearing, that if his speech did not return by next morning his

head was to be shaved by the Regimental Barber.

He certainly looked a sight next day with his head like a phrenological bust.

The next stage in the treatment was to have been a large blister, but when the time came I found that he had won the Matron over to his side and that she would consider it a personal favour if I could find some less cruel method; that he was a nice boy, very nervous and that he had been upset by the Sergeant, who must be a coarse bully of a man.

I smiled and did not tell her what I had found out about him. I had interviewed his friend in the cells. This lad was a weakling whom he had easily led astray and who now was full of remorse because he had no stomach for fighting or trouble of any kind, being a chronic sufferer from asthma down on my list and in order not to spoil his chance of discharge he gave his friend away badly.

It seems his friend although not actually saying that he was about to malinger had at any rate given him to understand he need have no anxiety about him as his knowledge of the world had taught him how to make use of Sergeants and even Doctors for that matter. That he had had a very romantic career, so romantic that one could not believe everything but that he had been to America as a steward or that he was an American. He had also been an actor and had a reputation in the battalion as an impersonater of such celebrated men as Irving, Dan Leno, and Charlie Chaplin.

But the most important information came to me at Mess that night where I found he was thought to be genuine. It seems that at their last station he had evoked great interest owing to his having been mute for over a month, during which time he had frequent fits. He was said to have been considered by the M.O. to be a rare and interesting case and accordingly he was petted and made much of by lady visitors of importance. I ventured to prophecy an early recovery so was rather put back by the Matron's interference on his behalf. However, the dinners just coming in gave me a useful idea so I put him on low diet, three pints of milk a day.

Next day over the bed of one of his friends I told the Matron that mental cases not being my forte I was making arrangements for his admission to an asylum with another man, Sam, the cook.

When we reached his bed in our progress, in answer to appealing looks from him Sister told me that he was very anxious to be discharged as he was about to be married. Although not quite certain of my facts I ventured to tell her that he was a wicked young deceiver as he already had a rich young wife and two children in America. I really thought from the indignation with which he gesticulated that he was about to recover his speech, but it didn't come off.

That evening his Company Officer told me that he had heard of a letter received by some friend in his company in which the poor sufferer had threatened to do in the M.O. as soon as could get hold of a rifle. The Captain was inclined to take a serious view of the case, but I asked for proceedings to be quashed as I could quite understand his being a bit nettled.

Next day over the same friend's bed, so as to make sure of the information being carried to the right quarter, I suddenly remembered to caution Sister to be careful to keep all outdoor clothing under lock and key as I had arranged to send the asylum party off very shortly and that he would be kept under observation by the Asylum Authorities for a month.

That evening as I was going to bed a messenger came in hot haste to say he was in a fit and a bad one. I said that 10 o'clock was too late for fits; that I should be pleased if he would arrange one for 10 next morning when I should probably be at the hospital, but that fits or no fits if I failed to come he was to be put in the ambulance when it came with Sam and the warrants for the journey would be given to their escort.

When I arrived at the Hospital next morning I was not altogether surprised to hear that after a slight fit early that morning he had recovered his speech. So I said he could dress and if he finished cleaning the windows in time he could have a little dinner if he felt strong enough to eat it.

Talking of speech reminds me that I heard an officer the other day talking of four days leaf. That really, in present day slang, put the lid on as far as I am concerned. I am afraid that I must be an old fogey but I don't think the best English is to be found in the tanks and I still jib when I hear route march called rout march and rations with a short

a as if it were derived from rat instead of rate.

Whenever you can, get leave to form a Regimental Hospital. Of course at the front evacuation every 48 hours is necessary, but at home if the R.M.O. is keen on his work his men will be better looked after than when they are drafted off to another hospital.

It is in the establishment of regimental hospitals that I have met with most red tape. In my experience the equipment if indented for through the regulation channels may be excellent in quality and lavish in quantity, but it takes weeks to provide it, which is rather awkward if you want it in a day or two.

In choosing a house try for a large one with a good number of rooms so that you can separate diseases and put the scabies cases on the top floor.

As regards equipment get the Editor of the local paper to print an appeal for gifts or loans. Put a notice outside to invite visitors to step in and see what is missing.

At the same time fill it pretty well with men lying on their own bedding and the sympathy evoked will probably lead to your finding it fully equipped by the end of the first week.

Until the cooking is established their meals will have to be sent in by their companies. Appeal to the ladies of the town to come and cook for your men. Remember that it is arduous work and not showy, so you cannot have too many. Make it plain that they need not wear uniform and if they like to work in pairs they are at liberty to do so.

Whatever help you may get from the V.A.D.'s try and get a trained Nurse as Matron. It is awkward on noticing a man looking flushed and heavy to be told that his temperature just taken is 98° when it is really 103°.

In the same way try and get a good N.C.O. to take charge of the hospital. Owing to the competition for the services of good N.C.O.'s you will probably have rubbish shot on to you, and it stands to reason that discipline will suffer. I got over the difficulty in one case by suggesting to a Sergeant with tachycardia that a 'prolonged course of hospital treatment was necessary and after a few days quietly installed him in command.

Have a copy of the rules posted up in each room, make them short, thus, (1) No patient to meddle with an open window. (2) No patient to go out without permission and then only with a hospital brassard on his arm, this is to enable the police outside pubs to identify your men. (3) No smoking except for an hour after meals.

If you can get the R.E. to inspect and authorise repairs and distempering or whitewashing well and good, but see that the authority is in writing. I got into awful trouble once through the P.R.I. acting for me, but not getting written authority for it.

I daresay that like myself you will occasionalnly find yourself let down and a lot of your time and trouble wasted through some fine old army muddle. Talk about doctors being unbusinesslike, the average army officer can give the doctor points.

My favourite retort when the offender is of equal or inferior rank is that he would find it useful to go on a course of instruction in organisation under our village curate as practice in running Sunday School treats would have obviated this particular fiasco.

If of superior rank I ejaculate to the stars above, Well, thank God we've got a Navy!

Papers by Guy's Men.

C. P. Symonds, M.D. Spontaneous Sub-arachnoid Hæmorrhage.—Proc. Roy. Soc. Med., xvii., 1924. Sec. of Neurology, p. 39.

F. Bocquet Bull, L.D.S., M.R.C.S., L.R.C.P. A case of Partial Nasal Obstruction from 5—19 years of age.—*Dental Record,* xliv., 1924, p. 377.

Arthur F. Hurst, M.A., M.D., F.R.C.P. The Savill Lecture on Migraine, *Lancet,* 1924, ii., p. 1.

Appointment.

C. H. Medlock, F.R.C.S., Assistant Surgeon to the Hertford County Hospital, Hertford.

Hospital Appointments.

Mr. V. E. Lloyd, M.B., B.S., Director of the Venereal Diseases Department.

Miss Morna Rawlins, M.B., B.S., Female Assistant Director of the Venereal Diseases Department.

Mr. G. B. Dowling, M.D., Medical Officer of the Venereal Diseases Department.

Mr. H. W. Harvey, L.R.C.P., M.R.C.S., Medical Officer to the Venereal Diseases Department.

Miss Violet Russell, M.D., Medical Officer, Female, to the Venereal Diseases Department.

Another Female Medical Officer is to be appointed.

The Whirl We Live In.

[Being an impartial and accurate account of the activities of the Nurses' Home.]

BY T. G. S. M.

THE Editor has invited me to write a page of "Nursing News" for each number of the GAZETTE and there is no reason at all, save my great good-nature, why I should humour him. Editors are notably eccentric, but not all are so inconsiderate. You see my spare minutes are much too valuable to be spent in writing what I for one shall never read, and secondly—I must make up a clean cap.

Making up a cap requires a little thought—you have to choose one that isn't too "holey" and one that hasn't been ironed inside out—then finally selecting a clean uncrumpled half circle of starched linen (I'm not awfully sure what the stuff really is!) you begin. Of course, Guy's uniform is quite one of the neatest and prettiest compared with the assortments displayed while the Prelim. Practical State Exam. was being held here, but some of the caps were rather cunning! You ought to have seen those spread out like Dutch bonnets!

Then there were some like Russian headdresses—the turned-back bit going up into a point in the front. You wonder how you'd look in a Russian headdress, and with a sigh you start gathering up the back of your cap—four inches in width at the back is professional. Why it should be is hard to think—it all depends on your head! Supposing you've got a narrow head its alright, but if your bumps are very pronounced and your crowning glory is abundant—well, the only thing to do is to be unprofessional.

Then, as almost invariably happens, the thread breaks. Feverishly you start again—the lights go out—you're left stumbling in the dark—you prick your fingers—more thoughts, best not spoken aloud!

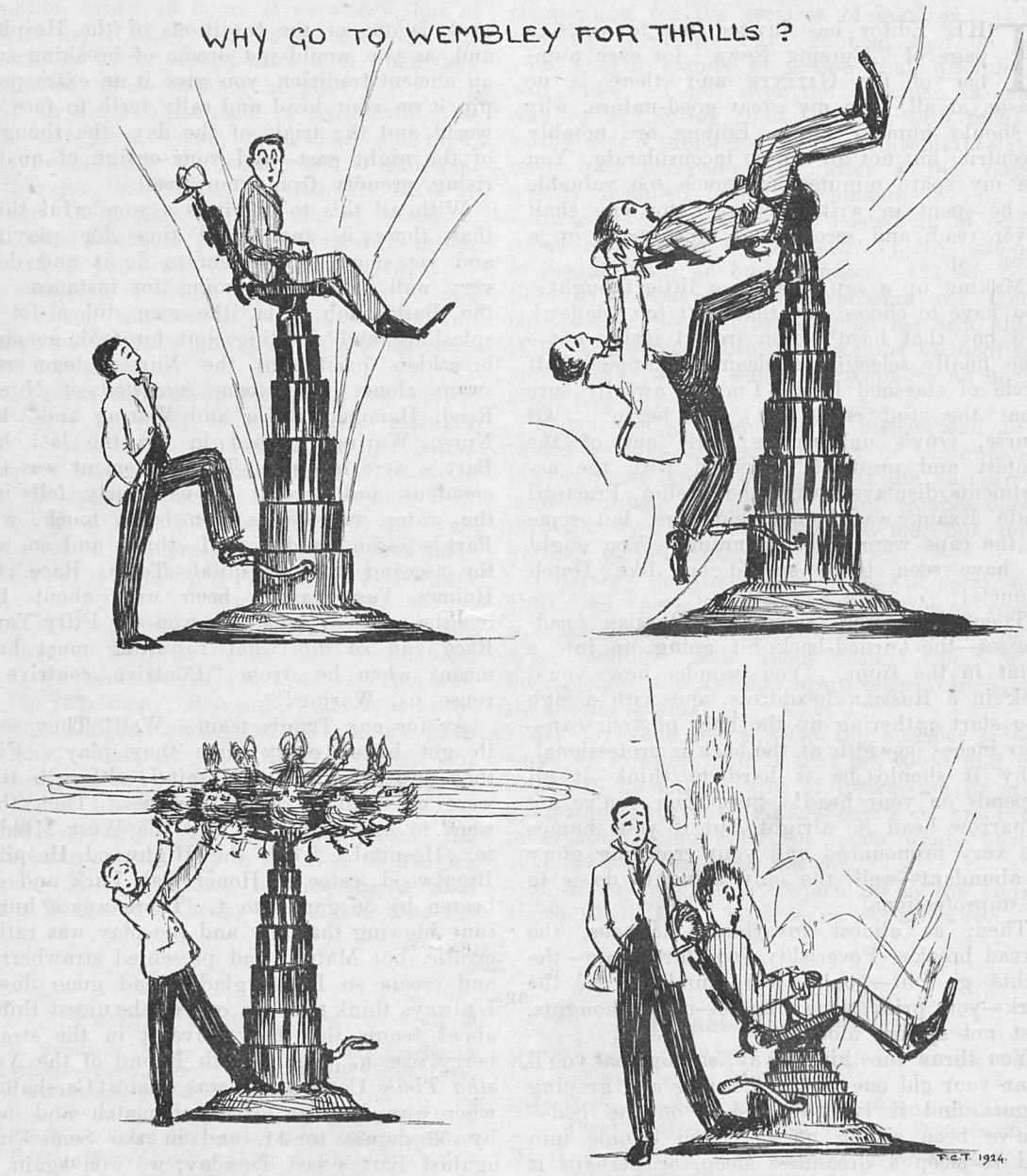
You throw the thing away, saying that you'll wear your old one in the morning and groping fingers find it lying squashed on the bed—you've been sitting on it! You tumble into bed to sleep a dreamless sleep, or perhaps it may be broken by visions of innumerable caps waiting to be made up and no time to do them in!

The dawn of the new day breaks, and you rise and quickly finish your cap, this time without any thoughts because you've no time to waste. You poke out the peak—a true Guy's peak is one of the traditions of the Hospital, and, as you would not dream of breaking such an ancient tradition, you give it an extra poke, pin it on your head and sally forth to face the world and the trials of the day—the thoughts of the night past—and your ensign of quality rising proudly from your head.

With all this to do, it is a wonderful thing that there is any spare time for playing, and yet some of us seem to do it and do it very well. Take swimming for instance. At the Bath Club Gala, the men did a lot of splashing and shouting, but for real, gasping, breathless excitement the Nurses' team race swam alone. Our team consisted of Nurses Reed, Hammer, Baker and Waring and when Nurse Waring jumped in for the last lap, Bart.'s were leading. The excitement was tremendous and several of us nearly fell into the water, but Guy's won by a touch, with Bart.'s second and U.C.H. third, and so won the second Inter-Hospital Team Race, the Holmes Vase having been won about two months ago. Waring also won the Fifty Yards Race and so did what Browning must have meant when he wrote "Contrive, contrive to rouse us, Waring!"

As for our Tennis team. Well! They seem to get better every time they play. First they beat the Grove Hospital, although they were all feeling rather nervous. Then they went to Isleworth and beat the West Middlesex Hospital. Then the Highwood Hospital, Brentwood, came to Honor Oak Park and got beaten by 36 games to 4. There was a hurricane blowing that day and the play was rather erratic, but Matron had presented strawberries and cream so I was glad I had gone down. I always think that it's one of the nicest things about tennis that they have it in the strawberry season. The Fourth Round of the *Nursing Times* Competition was against Carshalton, where we had an excellent match and won by 36 games to 11, and in the Semi-Final against Bart.'s last Tuesday, we won again by 36 games to 14 and so meet St. Thomas's in the Final.

In all of these matches the A couple were Sister Johnson and Nurse Stubbs, and the B couple Sister Cornwall and Nurse M. White, except in the first one, when Sister Rollo played.



The Conservation Room is nearer, and costs nothing.

Reviews.

General.

Orations and Addresses. By Sir JOHN BLAND-SUTTON. First edition. Published by William Heinemann (Medical Books), Ltd., London. Price 10*s.* 6*d.* net.

THIS fascinating book contains a collection of orations and addresses delivered in divers places and published in sundry journals, one as early as 1887, others as late as 1923. The author has the gift of holding his reader entranced, whether he is writing of the life of John Hunter, the habits of the Aguaruna Indians, or the choroid plexuses. The writing is so full of charm that the subjects of the various chapters do not really matter. We have found the volume far too short, but full of inspiration, and recommend it to any, who are inclined to lose their faith in the romance of medicine and surgery.

Radium; its Therapeutic Uses in General Practice. By G. H. VARLEY, M.D. First edition. Published by Humphrey Milford, Oxford University Press, London. Price 6*s.* net.

THE use of radium as a therapeutic agent is comparatively new and the conditions in which it may be applied are not by any means common knowledge. This small book points out the various diseases in which treatment by radium has had beneficial effects. Very few cases have been followed up for any length of time, but the results given by the author justify a wider use of radium with a hope of alleviation of symptoms if not of cure.

New Views on Diabetes. By CAMMIDGE & HOWARD. Published by Oxford Medical Publications.

THIS book is evidently not intended for the practitioner or the student, but for the researcher. Such men are not slow to show appreciation or criticism of a fellow scientist's work. The reader will find he can give both freely on almost every page. He will realise the vast amount of work necessary to provide the material, and will value the book chiefly because it brings within two covers most of the authors' many new and interesting theories that have been published from time to time in paper form. Perhaps the most striking of these is their work on the dissociation constant of the blood, the partial pressure of CO_2 in the alveolar air and the percentage of sugar in the blood.

But it is a great pity that the experiments have not been presented in a more convincing form. For example, on several occasions he represents a "normal curve" by a single line, leaving the reader to understand that only one normal subject has been taken; if not it must be an average normal curve which is almost equally useless without maximum and minimum "normals." Again, in giving several test meals to the same subject he starts with the assumption that the blood sugar is the same before the meal is given on each day. This is most misleading, as anyone who has any experience of this work knows that even when circumstances are the same, the blood sugar varies enormously.

But in spite of these few short-comings the book will doubtless prove of great value to those working at or interested in this subject. There is an excellent bibliography.

Endocrinology.

The Parathyroid Glands in Relation to Disease. By H. W. C. Vines, M.A., M.D. 1st edition. Published by Messrs. Edward Arnold & Co., London. Pages viii+128. *Price* 10*s.* 6*d. net.*

THE present knowledge of the endocrine group of glands is so limited that it makes any dogmatic statements on the action of their secretions either in health or disease extremely rash. In the book under review the author has admitted this and has confined himself to the statement of the various views on the physiology of the parathyroid glands with his own deductions on their probable influence on the metabolism of the body in health and disease. He particularly remarks that, at any rate for the present, one gland of internal secretion cannot be considered apart from the other endocrine organs, and he is at pains to describe his conception of the interaction of the parathyroids with the thyroid, pituitary, suprarenals, thymus, gonads, and the autonomic system of nerves. The whole subject is bound up closely with that of calcium metabolism and immunity, and the author discusses the entire subject clearly and in an unbiassed manner. The last chapter is a summary of the entire volume and is a most acceptable addition to the book, an addition which might well be followed by all those who write on unusual, and often intricate, medical subjects. There is also a bibliography of 274 references and an appendix, containing a list of cases treated by parathyroid therapy.

It is a volume of great interest, opening up a method of treatment, as yet hardly tried by the general practitioner and, as usual with books from this house, it is excellently produced.

An Outline of Endocrinology. By W. M. CROFTON, B.A., M.D. 1st edition, pp. vii+126. Published by Messrs. E. & S. Livingstone, Edinburgh. Price 6*s.* net.

SO much is written nowadays on organotherapy, some of it based on established physiological principles, but more being entirely theoretical that it is good for both the student and the medical practitioner, who, of course, is nothing, if he is worthy of his profession, but a post-graduate student, to make themselves acquainted with modern advances in endocrinology. A large number of facts bearing on pathological conditions are definitely established. Some of them were mastered in the old days of physiology, others have been learned since, but quite a number of them are already forgotten or are remembered only as isolated facts. The whole principle of endocrinology is based on the knowledge of the inter-relation of the ductless glands and their antagonistic or complementary relations to each other. It is in refreshing the memory on these points that such a book as the one at present under review is useful.

The book has purposely been kept within a small compass and is not intended to be more than an outline of the study of the internal secretions. Most of its pages are taken up by facts, but a few theories are given, especially in the chapter on the pancreas. For each gland is given a short account of its his-

tology, development, physiology, pathology, and therapeutic value, and the book ends with with an epilogue on the origin of internal secretions.

It is a short, easily-read outline and answers the purpose for which it was written.

Dermatology.

Handbook of Skin Diseases. By FREDERICK GARDINER, M.D. Second edition. Published by E. & S. Livingstone, Edinburgh. Price 10*s*. 6*d*. net.

THIS book is well suited to the students' requirements and pocket. Realising that time for reading is limited, the author's aim has been terseness, and he has taken the diseases in their order of frequency, dealing with the commoner ones first and the rarer ones afterwards. The chapters are the direct outcome of lecturing experience, and are well illustrated by twelve coloured plates and forty-six photographs.

A Synoptic Chart of Skin Diseases. By B. BURNETT HAM, M.D., D.P.H. First edition. Published by Messrs. H. K. Lewis & Co., Ltd., London. Price 12*s*. 6*d*.

THE chief feature of this chart consists of two coloured plates of the human figure (back and front) on which are depicted in colour typical skin lesions in characteristic positions. The lesions are grouped together " by contrast and in association, in order that the memory may be the more easily impressed." A short summary, of each condition depicted, is tabulated and these tables form a quick way of grasping the main facts of any of the skin diseases mentioned. The scheme is good for a busy practitioner with a skin lesion to diagnose, but as regards the actual coloured plates, we notice an absence of life-likeness in most of the lesions depicted.

Nursing.

Elementary Hygiene for Nurses. By H. C. RUTHERFORD DARLING, M.D., M.S., Lond., F.R.C.S.Eng., F.R.F.P.S. Glas. Price 4*s*. 6*d*.

FROM this book a good general knowledge of Hygiene can be obtained. The subjects dealt with are clearly arranged and illustrated with excellent diagrams. As a handbook for nurses entering for the State Examination it should prove very useful.

Pediatrics.

Common Disorders and Diseases of Childhood. By G. F. STILL, M.A., M.D., F.R.C.P. 4th edition. pp. xvi+965. Published by Mr. Humphrey Milford, Oxford University Press, London. Price 25*s*. net.

EIGHT years have passed since Dr. Still issued the third edition of his "Common Disorders and Diseases of Childhood," and in those eight years medical knowledge has made great strides. As the author states in his preface, the discoveries made almost daily and largely the work of the biochemist, make it more and more difficult to write dogmatically on questions of medicine and, as an example, he quotes the pathogenesis of rickets. The physician must work with a receptive mind open to accept, or at least to consider, any new discovery and must be prepared to have his old and cherished ideas disproved. For his increase of knowledge he must look to the practical men, not only of the laboratories, but also of the hospital ward and the bed-side. It is by pondering the views of experienced observers and comparing them with the views of others, and with his own experience, that he will be able to form his own judgement as to the truth of any statement. And so it is the personal opinions of these observers that matter to him.

Under these circumstances, Dr. Still's apology for the pervasion of his book " almost to an unseemly degree, by the ego" is more modest than warranted. It is the fact that the book is a record of personal observation and experience over a large number of years that makes it of such extreme value. One has not necessarily to take all that is written therein for granted, but every fact or suggestion is founded on so much clinical experience that it must carry great weight in any consideration of it. For a similar reason it is impossible to read any of its chapters without a rising feeling of enthusiasm for the subject it describes. This feeling of intense interest is maintained throughout the whole book, which is most warmly recommended to all who are interested in the diseases and disorders of childhood.

Sport.

Cricket.

TO the supporters of the Cricket Club, both past and present, and we know we have many for we have seen letters in the GAZETTE asking for reports, and there have been references to the Club in "Passim," we tender our apologies for the long delay in the publication of our reports.

Cricket is flourishing at the present time and never since the war has there been such unbounded enthusiasm and keenness. Competition for a place in the teams has been fierce, and as a result we have probably got the best post-war first eleven we have ever had and an equally fine second eleven. The batting strength of the first eleven is very even, and with two such excellent bowlers as J. Durr and J. G. Van Schalkwijk the side is such that it can give a beating to most club sides in London. The second eleven, under the able captaincy of V. Estment, are also well balanced, and extraordinarily keen. Indeed keenness is the "watchword " of the whole club.

The fielding in the first eleven especially has improved beyond recognition, and too much importance can never be attached to this part of the game. A good fielder is always worth his place in the team, much more so than an erratic bowler or batsman who succeeds occasionally but fails often.

The difficulties encountered by the club are many. We run three teams, but both the second and third elevens suffer from a lack of games. For this there

is, at present, no help, for one ground is not enough for three teams, and other clubs will not usually give games unless a home game is offered in return. But we would ask those who feel that they do not play often enough, never to give up their enthusiasm and to turn out loyally for any game for which they are selected. We are also badly in need of the services of a professional coach. Strenuous efforts were made this year to obtain one, but without any success. We shall hope that one may be found next season. Another difficulty—and perhaps the greatest to a harassed captain and committee—is one which is artificially manufactured in the distraught minds of the playing members, who often feel that they ought to work instead of play for the Hospital team, and therefore "scratch" for a game. To them we would commend the wise paragraph in "Passim" of the last issue of the GAZETTE in which the writer exhorts Guy's men to play hard and work hard. There is time for both.

By the time this is published the first eleven will have in all probability played St. Thomas's Hospital in the Final of the Inter-Hospital Cup. We do not underestimate the strength of St. Thomas's, but we hope that the Cup will once again adorn the College Smoking Room after fourteen long years of absence. May the best team win!

1st XI. Match Reports.

Guy's v. Westminster Bank.

31st May. Result—a draw.

OUR opponents won the toss and elected to bat first on a very dead wicket. It was essentially a batsman's wicket, a fact which the opening batsmen proceeded to demonstrate. After a few lucky shots Lear and Norrish settled down to punish the bowling, to the extent of 220 for 2 wickets. At this large total they declared, and E. J. Pye-Smith and L. S. Williams went in to open the Hospital innings. Runs came very steadily at first, but later both batsmen opened out their shoulders a bit more and the 100 mark was passed without any separation being effected. At 111 Williams was caught at mid-on, having "skied" one from the slow bowler. The succeeding batsmen batted very easily and steadily, and when stumps were drawn, the Hospital score stood at 150 for 3 wickets.

Westminster Bank.

J. Lear, not out	109
Pring, c & b Van Schalkwijk	9
Norrish, c L. S. Williams, b Van Schalkwijk	86
Bradley, not out	5
Extras	11
Total (for 2 wickets)	220

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	16	4	20	2
L. S. Williams	5	0	25	0
G. Fellowes-Smith	8	1	28	0
L. Catchpole	4	0	30	0
S. R. Trick	5	0	41	0
D. Calder	8	0	26	0
G. D. Shaw	8	0	29	0

Guy's.

L. S. Williams, c Jackson, b Bowman	65
E. J. Pye-Smith, b Kirk	54
C. Arkles, b Kirk	16
L. Catchpole, not out	13
Extras	2
Total (for 3 wickets)	150

J. G. Van Schalkwijk, G. D. Shaw, G. Fellowes-Smith, D. Calder, C. Davies, S. R. Trick, and L. Brown did not bat.

Guy's v. Chelmsford.

At Chelmsford, June 7th. Result—lost by 26 runs.

THIS is always one of the best of our yearly fixtures, and this year's game was no exception. Chelmsford won the toss and decided to bat on a drying wicket. The opening pair soon played themselves in, and 103 was on the board before a wicket fell. The ground fielding of our team was very faulty, but after lunch Guy's gained round after round of applause from an appreciative crowd for very fine fielding. Arkles was especially good in the outfield and Ensor and Fellowes-Smith on the off-side. Baksh bowled very well, but we sadly miss the "fast" ones of Van Schalkwijk, who has been suffering from a strained side. Chelmsford declared at tea at 223 for 7 wickets. After tea Guy's opened disastrously, for our opening pair were dismissed with only 2 on the board. However, Catchpole batted manfully, and he and Fellowes-Smith, who collected 20, stopped the rot. Durr then helped the total along by a quick-hit 25, and then Van Schalkwijk came in to play a splendid innings of 47. Trick also batted very well, with the result that we came within 26 of the Chelmsford total. It was a plucky effort after such a disastrous beginning and much appreciated by the crowd. Catchpole deserves special praise for his faultless innings, and Durr, Van Schalkwijk and Fellowes-Smith for their accurate hitting of the bowling. Scores:—

Chelmsford.

J. C. Reeve, b Baksh	24
P. W. Turrall, c Trick, b Durr	68
J. H. Franklin, c Durr, b Baksh	4
W. G. Turrall, b L. S. Williams	39
M. C. Salter, c Shaw, b Baksh	8
A. M. Waller, c Fellowes-Smith, b v. Schalkwijk	27
F. Porter, run out	17
C. H. Turrall, not out	11
Extras	15
Total (for 7 wickets)	223

Bowling Analysis.

	o.	m.	r.	w.
J. Durr	13	1	53	1
I. Baksh	22	2	61	3
J. G. Van Schalkwijk	12	2	66	1
G. Fellowes-Smith	1	0	2	0
G. Ensor	5	1	13	0
L. S. Williams	1	0	5	1

Guy's.

L. S. Williams, b Turrall	1
G. D. Shaw, b Jaggs	0
C. Arkles, b Jaggs	10
L. Catchpole, b Jaggs	43
G. Fellowes-Smith, b Jaggs	20
A. G. Ensor, c Porter, b Jaggs	1
J. Durr, c Jaggs, b Turrall	25
J. G. Van Schalkwijk, c H. Turrall, b Turrall	47
S. R. Trick, not out	18
P. Droomer, c Young, b Jaggs	10
I. Baksh, b Turrall	3
Extras	19
Total	197

Guy's v. Crofton Park.

At Honor Oak Park, Monday, 9th June. Result—won by an innings and 87 runs.

GUY'S were too strong for our old friends on Whit-Monday. The Hospital batted first, and L. S. Williams and E. J. Pye-Smith opened with a fine partnership of 91 before Pye-Smith was bowled. After such a good start the following batsmen decided to go for the bowling, and despite the good length and steadiness of it, the Hospital ran up the useful score of 206. Crofton Park's batsmen did not seem able to cope with the bowling of Durr, who proceeded to skittle them out for 49. Gooding made a plucky effort to stop the rot, but his career was cut short by Van Schalkwijk holding a brilliant catch at mid-off. We sent them in again, but although they fared a little better, they again suffered complete collapse. Scores:—

Guy's.

L. S. Williams, b Lawton	47
E. J. Pye-Smith, b Lawton	42
L. Catchpole, run out	13
G. D. Shaw, b Burley	20
J. G. Van Schalkwijk, b Burley	17
J. Durr, b Lawton	0
G. Fellowes-Smith, b Burley	0
C. Arkles, b Burley	10
G. Ensor, b Burley	11
S. R. Trick, not out	19
P. Droomer, st. b Burley	14
Extras	13
Total	206

Crofton Park made 49 in the first innings and 70 in the second.

Bowling Analysis.

1st innings.

	o.	m.	r.	w.
J. Durr	12	3	30	8
G. Fellowes-Smith	5	5	0	1
G. D. Shaw	6	2	6	1

2nd innings.

A. G. Ensor	9	3	19	1
L. S. Williams	7	2	13	3
S. R. Trick	3	0	7	0
J. G. Van Schalkwijk	6	3	11	4
J. Durr	8	4	7	2
G. D. Shaw	6	3	4	0

Guy's v. Old Charlton.

At Charlton, on 14th June. Result—won by 93 runs.

GUY'S won the toss and elected to bat on a good wicket. Pye-Smith and Williams opened the innings, but disaster soon overtook the Hospital, for Pye-Smith mishit and played on when only 12 runs were on the board. Williams left soon after, and collapse set in. Five wickets were down for 29, when Curtis and Fellowes-Smith became associated in a partnership which took the total to 69. Fellowes-Smith was bowled after a well-hit 28. Ensor then joined Curtis and the pair defied the bowling until tea, putting on over 100 runs. They both played faultless cricket, and Curtis is especially to be congratulated, for this was his first game for the first eleven. After tea we sent in our opponents with about two full hours in which to make the runs. However, Durr again proved too wily for the batsmen and they were out for 83, leaving the Hospital easy victors. Scores :—

Guy's.

L. S. Williams, c Shrimpton, b Martin	12
E. J. Pye-Smith, b Bannerman	4
L. Catchpole, run out	5
J. G. Van Schalkwijk, b Bannerman	5
C. Arkles, b Hammond	11
J. Durr, c & b Bannerman	2
G. Fellowes-Smith, b Bannerman	28
A. H. Curtis, not out	52
A. G. Ensor, not out	50
Extras	7
Total (for 7 wickets)	176

S. R. Trick and P. Droomer did not bat.

Old Charlton.

Shrimpton, b Durr	10
Head, st Pye-Smith, b Van Schalkwijk	23
Armstrong, b Durr	0
Martin, c Arkles, b Durr	3
Bannerman, b Durr	0
A. Barns, c Pye-Smith, b Van Schalwijk	1
Hammond, b Durr	22
Fisher, c Fellowes-Smith, b L. S. Williams	6
Stevens, c Fellowes-Smith, b L. S. Williams	2
Baxandall, c Curtis, b Williams	0
Cribb, not out	0
Extras	16
Total	83

Bowling Analysis.

	o.	m.	r.	w.
J. Durr	14·3	1	24	5
Van Schalkwijk	12	1	24	2
L. S. Williams	4	0	18	3
A. H. Curtis	2	2	0	0

Past v. Present.

THIS pleasant reunion of old Guy's men with one another and with their successors at the Hospital took place at Honor Oak Park on Wednesday, 15th June. Dr. Harkness, to whom all thanks are

due for raising the Past side, had the inevitable disappointments at the last minute, but with H. Richards and Prof. Stokes, who sportingly consented to play, a complete side took the field against the Present. Dr. Harkness won the toss and decided to bat. the sun came out, and also the opening batsmen. Van Schalkwijk and Fellowes-Smith each bagged a wicket before 10 was on the board, and with Mr. Fagge and Prof. T. B. Johnston in, things looked like steadying a bit, but Fellowes-Smith bowled Mr. Fagge when he had made 5. Dr. Sampson now joined the Professor and something of a stand was promised. Indeed, Prof. Johnston looked like getting thoroughly set, until Williams brought off a fine left-handed catch at first slip off Van Schalkwijk. Dr. Lindsay now came in, and with Dr. Sampson made a very gallant effort to withstand the bowling. Williams, however, made another catch in the slips off Shaw to dismiss Dr. Sampson. Guy's continued to bowl and field well, and despite a really good knock by Mr. O'Meara, the Past were all out for 85.

Pye-Smith and Williams opened again for the Hospital and looked like passing the total together, but Williams got his leg in front of a straight one from Dr. Harkness at 73. With the help of Arkles, Shaw and Van Schalkwijk the total went to 107, and after this the bowling obviously tired and big scores were the order of the day. Van Schalkwijk declared with only 7 wickets down, having won by a comfortable margin.

A second attempt by the "veterans" produced a fine partnership by Prof. Johnston and Dr. Hancock, who put on 61 before being separated. Thereafter there was a procession and the happy day came to an end. Of our visitors special mention must be made of Mr. O'Meara, who batted really confidently against some of the best of our bowling. Prof. Johnston showed that he is a fine batsman, and with a little more practice would have made many runs. He is also a wicket-keeper of great experience, for he only allowed 11 byes in a total of 222, most of them very early in the innings. Fellowes-Smith and Van Schalkwijk bowled very well for the Hospital. Scores :—

Past.

R. C. Chase, b Van Schalkwijk	2
A. C. Hancock, b Fellowes-Smith	1
T. B. Johnston, c Williams, b Van Schalkwijk ...	12
C. H. Fagge, b Fellowes-Smith	5
B. Sampson, c Williams, b Shaw	14
H. M. Gray, b Van Schalkwijk	3
G. L. Lindsay, run out	14
A. H. Harkness, c Fellowes-Smith, b Williams...	4
D. J. P. O'Meara, b F. Smith	24
H. Richards, b Fellowes-Smith	0
Prof. A. Stokes, not out	2
Extras	3
Total	85

Bowling analysis.

	o.	m.	r.	w.
G. Fellowes-Smith ...	9·5 ...	3 ...	24 ...	5
J. G. Van Schalkwijk	5 ...	0 ...	19 ...	3
L. S. Williams	5 ...	0 ...	24 ...	1
G. D. Shaw	3 ...	1 ...	3 ...	1
A. G. Ensor	6 ...	2 ...	10 ...	0

Present.

E. J. Pye-Smith, c & b Sampson	23
L. S. Williams, lbw, b Harkness	36
C. Arkles, c O'Meara, b Sampson...	8
G. D. Shaw, c Lindsay, b Gray	26
J. G. Van Schalkwijk, c & b Hancock	12
G. Fellowes-Smith, b Sampson	33
G. Ensor, b Hancock	29
A. H. Curtis, not out	34
S. R. Trick, not out...	5
Extras	11
Total (for 7 wickets)	222

P. Droomer and W. H. Dowell did not bat.

In the second innings the Past made 104 for seven wickets, of which Prof. Johnston made 28 and Dr. Hancock 20.

Inter-Hospital Cup.

Round 1.—Guy's v. St. Mary's Hospital.

Played on 16th June.

AFTER many postponements owing to the dreadful weather, this game was at last played at North Wembley. Guy's batted first, Pye-Smith and Williams opening the innings. Williams soon left, l.b.w. after an uncomfortable stay. However, Pye-Smith soon became set and he and Van Schalkwijk put on 100 runs for the 3rd wicket. Van Schalkwijk hit lustily for a very fine 63. Durr then came in and hit the bowling everywhere, compiling 100 runs in about one hour. He hit five sixes and eight fours. Guy's declared at 297 for 7, and sent in St. Mary's a quarter of an hour before tea. This policy was justified, for they lost 3 wickets for 21 before the tea interval. After tea Williams and Baksh proceeded to get the whole side out for 52 runs. This was a good win, and great praise must be given to Van Schalkwijk, Durr and Pye-Smith for their excellent batting. The last-named batted especially well, when things looked a little black. Baksh also deserves mention for his excellent bowling. Scores :—

Guy's.

L. S. Williams, l.b.w., b Couch	6
E. J. Pye-Smith, c O.Neill, b Craddock	72
L. Catchpole, b Jaggasar	14
G. D. Shaw, c Jackson, b Jaggarsar	0
J. G. Van Schalkwijk, c Jackson, b Couch ...	63
G. Fellowes-Smith, b Jaggasar	1
J. Durr, not out	102
G. Ensor, b Oliver	25
A. H. Curtis, not out	0
Total (for 7 wickets	297

C. Arkles and I. Baksh did not bat.

St. Mary's—52 all out.

Bowling Analysis.

	o.	m.	r.	w.
I. Baksh	13 ...	3 ...	11 ...	5
L. S. Williams ...	52 ...	0 ...	12 ...	4
G. D. Shaw	1 ...	0 ...	2 ...	0
J. G. Van Schalkwijk	6 ...	1 ...	21 ...	1

Round 2.—Guy's v. University College Hospital at H.O.P.

THIS game was anticipated with a little trepidation, for U.C.H. gave us a severe trouncing last year in this competition and they came down with practically the same side. They won the toss and elected to bat on a plumb wicket, Baksh and Durr opening the bowling. In the first over bowled, Baksh secured two wickets with two really fine balls, and then from the other end Durr who was swinging a good deal, got another. Both bowlers kept an excellent length and U.C.H. were out for 61, Collier alone making any show. Guy's then went in to bat, and with confidence born of anticipated victory, went for the bowling. Pye-Smith again showed excellent form in compiling 65, and Shaw and Kendle batted well for 40 and 33 respectively. We sent in U.C.H. to bat again, but they could make no stand and were all out for 81, leaving Guy's easy victors. The fielding of the Hospital side was very good, and if this all-round form can be sustained, Guy's should figure in the final Scores—

U.C.H.—64 and 81.

Guy's.

L. S. Williams, l.b.w., b Collier	1
E. J. Pye-Smith, c Branch, b Lean	65
L. Catchpole, lbw b Montgomery	10
G. D. Shaw, c Montgomery, b Naz	40
E. C. Kendle, run out	33
J. C. van Schalkwijk, b Lean	0
G. Fellowes-Smith, b Massingham	9
J. Durr, c Fernandez, b Montgomery	26
A. G. Ensor, b Naz	0
A. H. Curtis, c Branch, b Lean	22
I. Baksh, not out	48
Extras	48
Total	317

Bowling Analysis.
1st innings.

	o.	m.	r.	w.
I. Baksh	10	4	28	4
J. Durr	10	2	33	4
Van Schalkwijk	2	2	0	2

2nd innings.

	o.	m.	r.	w.
I. Baksh	3	0	15	1
L. Williams	5	0	28	2
J. Dure	9	1	15	4
Van Schalkwijk	5	0	15	3

Round 3.—Guy's v. St. George's Hospital.

THIS game was played at Honor Oak Park. Van Schalkwijk won the toss and elected to bat on a "plumb" wicket. Guy's made a poor start against some steady swinging bowling. Curtis and Durr, however, improved things, putting on 51 runs in about 25 minutes. Durr hit 6 four's and a six. Catchpole also batted steadily, and with Baksh put on 36 runs for the last wicket. The innings lasted only an hour and a half.

Before lunch St. George's scored 5 for 0. The bowling of Van Schalkwijk and Durr after lunch was excellent. Van Schalkwijk had bad luck in beating Dewes often without hitting the stumps. Fellowes-Smith very brilliantly threw down the wicket to run out Baxter. At tea-time the score was 110 for 9, and the last man was run out a few minutes later. Bridgeman batted very pluckily after having his hand injured by one of Van Schalkwijk's bumping deliveries. The fielding was patchy ; catches were missed—2 in the slips, 1 at square leg, and 1 at the wicket. Pye-Smith, however, caught 2 and stumped Burn cleverly off Durr.

With two hours and a quarter left for play, Guy's batted again. Williams soon lost Pye-Smith, but with Catchpole as his partner runs came freely. These two put on 103 very quickly before Catchpole was out for an excellent 45. Williams and Van Schalkwijk continued to hit, and when stumps were drawn, Williams was not out. His 64 included 11 fours.

Special mention must be made of the bowling. Van Schalkwijk kept up his pace throughout the afternoon, and Durr, bowling on a wicket that gave him no assistance, always made the batsmen play carefully. Score :—

Guy's (1st innings.)

E. J. Pye-Smith, c Plumstead, b Baxter	12
S. R. Trick, b Baxter	5
A. H. Curtis, b Taylor	23
L. S. Williams, b Plumstead	0
J. Durr, b Burns	36
L. Catchpole, not out	21
G. Fellowes-Smith, b Taylor	8
C. Kendle, b Burns	3
J. G. Van Schalkwijk, c Plumstead, b Burns	4
A. G. Ensor, b Burns	4
I. Baksh, c Burns, b Taylor	23
Extras	10
Total	149

Guy's (2nd innings).

L. S. Williams, not out	64
E. J. Pye-Smith, b Plumstead	3
L. Catchpole, c Dewes, b Plumstead	45
J. G. Van Schalkwijk, not out	5
Extras	4
Total (for 2 wickets)	121

St. George's—111 all out.

Bowling.

	o.	m.	r.	w.
Van Schalkwijk	20·4	4	32	4
J. Durr	20	6	33	3
I. Baksh	5	1	13	0
G. Fellowes-Smith	6	1	25	1

The Rowlands' Firm v. The Fagge Firm.

IT all seems very long ago now, that day before yesterday, and yet my memory conjures up the scene as clearly as though I saw it still. I close my eyes and once again I see the group of laughing, care-free cricketers sporting on the fresh, green grass, while behind them the summer blossoms cluster round the pavilion and enframe the leisurely figure of the head ground-man, smiling benevolently at so much joy.

"Oh to be always young," I cried, mistaking for one moment the creaking of my buck-skin pads for the first arthritic signs of bent, old age. I stood, thinking again of my early days, of the liquorice ribbons, four a penny, and oh! so elastic, of the little white rabbit that I would forget to feed, and of the hard-fought games of snap with my dear old mother, whose eyesight was failing. With something approaching a sob, I put down my glass and walked out into the smiling world, where all was fun and excitement.

"Mr. Slesinger has won the toss," said a voice. "And Mr. Fagge has lost it," cried another. "Oh, hurray, hurray," I said, and wondered whatever would happen next. "Our side is to field," said Mr. Fagge; "*everyone of us*," he added, catching sight of Simons making for the pavilion, "just to leave my blazers," as he explained, when discovered. And so the Fagge Firm went out to field.

Now fielding is just the merriest thing to do on a Sunday afternoon. As soon as the batter has hit the ball you have to wait until it has passed you, then away you go after it and chase it as hard as ever you can until it stops. Then if you have run hard enough you fall over and pick it up and get all ready to throw it in, but by that time the umpires are waving their arms and so there isn't any more hurry until the next time. All the fielders do this except the wicket keeper and he always runs backwards. He has a very dangerous position as he has to start right up touching the stumps, and often the ball comes so quickly that he hasn't run back far enough before it hits him, and everybody says, "Well stopped, sir," and the scorers laugh. I must tell you about the scorers. They were the ladies who came down to see the cricket match and they all had pencils and paper, so Mr. Fagge said they should keep all the runs he made and all the others gave them theirs too.

Well, the match went on and the Rowland's Firm made ever so many runs until the long-stops were getting quite tired out; but still the bowlers wouldn't give up. They were bowling all round the wicket and time after time beat the batsmen, who, try as they would, could not reach the balls. But even the stone walls of the Capitol were worn away in time and the Rowland's Firm were only human, so they all got out.

Now came the exciting part. Our side went in, and had to make 114 to win. It was just awful, sitting down and wondering if we could do it. Strong went in first and he didn't look as if he ever would come out again. First, he stood at one end of the wicket and then, if the other batter made a run, at the other end of the wicket, and although they changed the bowlers and bowled and bowled he took no notice; he just stayed in. Three wickets were down for 46 when the captain went in amid tremendous cheers from both sides and some of the tennis players as well and Martin got all ready to put the 100 up on the score board. Strong was still in making byes, and everything looked like a runaway victory, when the silly fellow hit one of Eckhoff's difficult balls and got caught out right away. Simons then went in and made 3; Martin was missed twice and then caught out for 5, and de Jager only got 1. Seventy-nine for seven! It was too dreadfully exciting. But the captain was playing for the honour of his firm. Playing fast with the loose ones and keeping a firm hold on the tight ones, his score gradually mounted and when Marshall was bowled for 1, the score was 88 for eight. Crook then went in and Mr. Fagge came to meet him. What it was he whispered we shall never know. It might have been a promise of the next vacant registrarship, it might have been only a shandy-gaff after the match, but whatever it was, Crook refused, absolutely refused, to get out. A smack to the boundary by the captain and a shout announced the 100; 2 more boundaries and a leg-bye and a roar heralded 110; 4 more runs to win. Could we get them? Never had we played so hard before. Falling about all round the seats and rocking our heads in our hands, we hoped and hoped that we could get them. One short run by Crook, who was nearly run out, made the agony unbearable. Several of the scorers put down their pencils, produced their handkerchiefs and said, "Oh, we can't." Mr. Fagge hit a two. We were level. Could we make the winning hit? Oh, reader, do say if we could. Everyone turned their backs to the wickets and counted ten and the groundman came out and crossed his fingers. Should we make that run? And then CRACK!! The ball sped to the boundary. THE FAGGE FIRM HAD WON!! Was there ever such a shout, such dancing, such singing of the doxology? The Rowland's Firm was beaten, and nothing else mattered. Mr. Fagge was soon stumped and the following ball stumped Meacock and then it was all over and we could all go back to work.

I am going to give you the full scores. The scorers had put a lot of little dots and m's and w's at the bottom of the page, but I don't know what they mean, so am leaving them out. Also where it said "wides" there was only one, so they crossed out the s.

The Rowlands' Firm.

1.	R. M. Williams	run out	Spence	8
2.	A. E. Grove	caught out	Rowbotham	14
3.	S. R. Trick	bowled out	Rowbotham	0
4.	R. C. May	run out	Spence	15
5.	A. C. Copley	caught out	Spence	6
6.	R. B. Fawkes	bowled out	Spence	15
7.	E. G. Slesinger	bowled out	Rowbotham	0
8.	J. Weston	bowled out	Spence	2
9.	J. Spicer	not out	—	8
10.	N. Eckhoff	bowled out	Spence	0
11.	W. R. Spurrell	bowled out	Spence	26
	Extras			19
	Total			113

The Fagge Firm.

1.	L. G. Housden	bowled out	Trick	15
2.	S. V. Strong	caught out	Eckhoff	3
3.	S. C. Rowbotham	leg before	Trick	0
4.	P. D. B. Spence	bowled out	Trick	17
5.	C. H. Fagge	stumped out	Eckhoff	41
6.	J. A. Simons	bowled out	Trick	3
7.	J. N. Martin	caught out	Trick	5
8.	J. A. de Jager	caught out	Copley	1
9.	H. W. D. Crook	not out	—	7
10.	C. W. Marshall	caught out	Copley	1
11.	S. P. Meacock	bowled out	Copley	0
	Extras			24
	Total			117

Shooting.

ON June 18th the final shoot for the Armitage Cup took place at Bisley. In the three previous shoots Bart.'s, by dint of steady shooting and skilled coaching, had built up the commanding lead of 28 points. On the last day, however, London, rising to the occasion in splendid style, put up a record score of 564 and succeeded in defeating their formidable opponents by the margin of a single point. Admitting that Bart.'s in the final shoot were without one of their strongest members, our congratulations are none the less due to the London team for the brilliant way in which they seized their opportunity, thus winning the Armitage for the first time. Guy's were placed 3rd, George's 4th, and St. Thomas's 5th.

ON Wednesday, June 25th, the Guy's and Inter-Hospital Prize Meeting was carried through at Bisley. A hot sun and a very varying light and wind all combined to keep scores low. Only Elgood, of Bart.'s with a splendid aggregate of 99, succeeded in coping with the difficult conditions. He was closely followed by Simpson of the London team with 98, who, however, fired later in the day when the conditions were markedly easier. Guy's were, unfortunately, as inconspicuous in the Prize List as they were prominent last year, Wimbush and Kingsbury in the Rapid and Snapshooting being our only successful representatives. Wimbush, shooting in the Rapid, gave a brilliant display, and afforded the one really bright spot in the day's work as far as Guy's were concerned. It had been hoped that Mr. Thompson would be able to come down and present the prizes. This at the last moment he was unfortunately unable to do. In his absence, Col. Blacklow, Commandant of the Australian Contingent at Bisley, kindly consented to act, the proceedings being thus very pleasantly concluded.

The shooting in the Guy's Hospital events was remarkable only for its uniform poorness, none of the competitors showing much ability to combat the difficulties of the day, Wimbush in the Rapid alone being excepted. Guy's have been much handicapped in the matter of rifles and equipment during the last two seasons. This weakness has been painfully revealed by the cordite ammunition compulsorily used in all the shooting this year. It is hoped that this will be largely rectified next year, so that a serious attempt may be made to compete with Bart.'s and London, and on a more equal footing.

The following is the Inter-Hospital and Guy's Prize List. A large proportion of the latter has again been very kindly presented by Mr. Thompson who has consented to present them personally at an early date.

Inter-Hospital Events—

200 Yards.—1st, Simpson (London); 2nd, Elgood (Bart.'s).

500 Yards.—1st, Elgood (Bart.'s); 2nd, Rowe (Bart.'s).

600 Yards.—1st, Elgood (Bart.'s); 2nd Rowe (Bart.'s).

Donegal Competition.—200 Yards, Simpson (London)

Aggregate—1st, Elgood; 2nd, Simpson; 3rd, Russell (London).

Rapid.—500 Yards—1st, Wimbush (Guy's).

Snap.—200 Yards—1st, Elgood (Bart.'s).

Guy's Events—

200 Yards.—1st, Hallpike; 2nd, Wimbush.

500 Yards.—1st, Hallpike; 2nd, Brown.

600 Yards.—1st, Brown; 2nd, Kingsbury.

Donegal Competition.—200 Yards—1st, Hallpike; 2nd, Marsh.

Novices' Competition.—Aggregate, 1st, H. Richards.

Team Competition.—Aggregate, Newton-Pitt Cup, Hallpike.

Mr. Thompson's Prizes—

Snapshooting.—200 Yards—1st, Kingsbury; 2nd, Marsh.

Rapid.—500 Yards—1st, Wimbush; 2nd, Kingsbury.

Aggregate.—Handicap, 1st, Harding; 2nd, Marsh; 3rd, Brown.

Scratch.—1st, Hallpike; 2nd, Brown.

C. S. HALLPIKE.

The United Hospitals Swimming Club.

SPLASH! A whirl of white arms; a mop of hair half submerged beneath the surface; a tremendous swirl and commotion at the far end of the bath; the mop of hair returning; a human figure levers itself on to land again; other delayed mops of hair approaching land; more human figures lever themselves on to land; a voice reverberates, declaring the winning mop of hair. The event is over. So much for a description of how Guy's by a succession of such antics won the Swimming Cup at the United Hospitals' Swimming Gala held at the Bath Club on July 2nd.

As to the polo, our victory over University College Hospital was well deserved both on account of the fitness of the players and the vigorous way in which they set out to beat their opponents. Perhaps we have seen our team co-ordinating better, but for this blemish L. Brown atoned for several long-range "sling" shots, four of which took effect. It would be invidious to single out any one man, for all played with delightful gusto, but we should like to take this opportunity of congratulating J. Simons on his leadership and also on the clever tactics which he has coached his team to employ.

Interspersed between the races and polo there were two displays, one of diving by members of the A.D.A., the other of picturesque manœuvres *en masse* by the Bath Club Ladies. The diving was—terrifying; the manœuvres, excellently carried out. Both these items were much appreciated by the spectators.

Lady Hale-White very kindly presented prizes to the following :—

Inter-Hospital Diving Cup.—A. J. King (London); A. R. Marsh (Guy's) was second.

Inter-Hospital 1 Length Race.—1, C. de Gruchy; 2, W. E. C. Tucker (both Guy's).

Inter-Hospital 100 Yards Race.—1, J. Jones (Guy's) 2, H. Yates (St. Thomas's); 3, R. Jarman (Guy's).

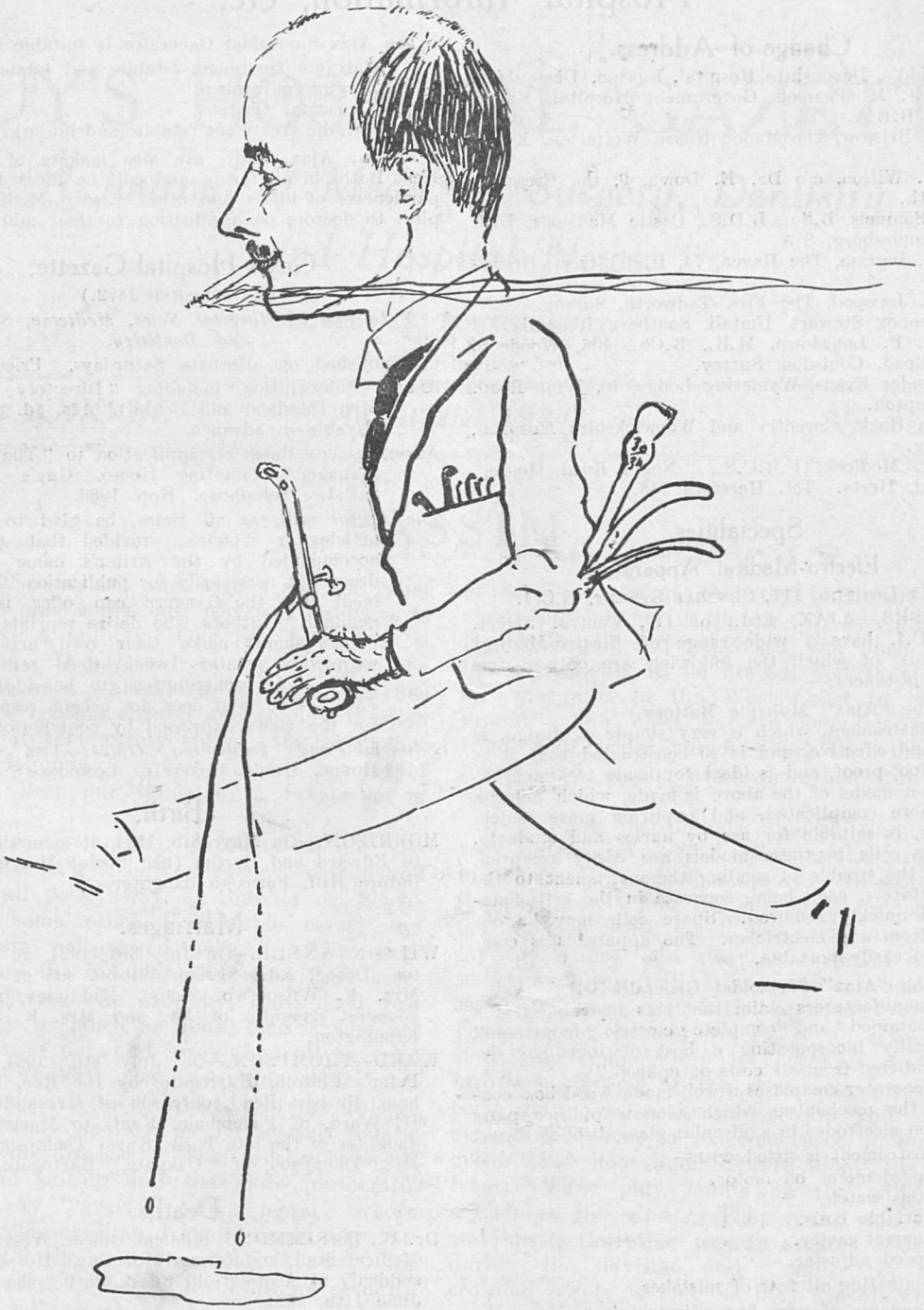
Inter-Hospital 50 Yards Race.—1, C. de Gruchy (Guy's); 2, W. E. Chiesman (St. Thomas's); 3, A. R. Marsh (Guy's).

Inter-Hospital Team Race.—Guy's won. Team—C. de Gruchy, W. E. C. Tucker, A. R. Marsh, J. Simons, S. E. Theis, J. Jones.

Inter-Hospital Water Polo Cup.—Guy's beat University College Hospital 7 goals to 1, with the following team—R. Stephenson, F. R. Dingle, C. de Gruchy, J. Simons, J. Jones, S. E. Theis, L. Brown.

Inter-Hospital Nurses' Team Race.—Guy's won. Team—Miss Waring, Miss Hammer, Miss Reed, Miss Baker.

Inter-Hospital Nurses' 50 Yards Race.—Guy's won. —With Miss Waring first.



The New Director.

Hospital Information, etc.

Change of Address.

E. Biddle, Devonshire Hospital, Buxton, Derbyshire.

Miss J. M. Pearson, Government Hospital, Kanyd Colony, B.E.A.

G. E. Bristow, The Manor House, Wolferton, King's Lynn.

E. F. Wilson, c/o Dr. E. Down, 9, the Crescent, Plymouth.

Elle Samuels, B.Sc., L.D.S., Castle Mansions, Eloff 51, Johannesburg, S.A.

S. W. Ingram, The Haven, 74, High Street, Broadstairs.

B. E. Jerwood, The Firs, Tadworth, Surrey.

J. Lennox Stewart, Umtali, Southern Rhodesia.

R. B. P. Lansdown, M.B., B.Ch., 106, Woodcote Grove Road, Coulsdon, Surrey.

Alexander Evans, Wymering Lodge, 40, Winn Road, Southampton.

Philip Hack, Coventry and Warwickshire Hospital, Coventry.

C. H. Medlock, F.R.C.S., "North Road House," Hertford, Herts. Tel. Hertford 148.

Specialities.

Electro-Medical Apparatus.

AJAX LIMITED, 117, CENTRAL STREET, E.C.1.

MESSRS. AJAX, Ltd., of 117, Central Street, E.C.1, have a wide range of Electro-Medical Apparatus, of which the following are only a few typical instances:—

The "Ajax" Multiple Battery.

This instrument, which is very simple of design, is cheap and effective, and is so constructed that it is almost fool-proof, and is ideal for home treatment.

Another model of the above is made, which being a little more complicated, and requiring more understanding, is suitable for use by nurses and students. The dry cells in these models are easily removed, without the trouble of sending the instrument to the manufacturers, each being separate in the cell-chamber and quickly removed. Spare cells may be obtained from any electrician. The apparatus is compact and easily portable.

The "Ajax" Sinusoidal Generator.

The manufacturers claim that this instrument is a "self-contained and complete electric department, scientifically incorporating a host of ingenious devices, and free from all costs of upkeep."

The generator comprises a well-made wood box containing the mechanism which consists of two pairs of carbon electrodes in a circular glass dish of water.

The instrument is fitted with—

Speedometer on motor.
Stop watch.
Variable coils.
Current meter.
Speed adjuster.

Thus eliminating all fear of mistakes.

It it capable of very fine adjustment, and may be used for a number of patients, being fitted with many-way terminals. About 18 different hospital treatments can be obtained from it.

The Ajax Sinusoidal Generator is suitable for—

Galvanic treatment (stabile and labile).
Surging galvanism.
Sinusoidal Current.
Faradic treatment (stabile and labile), etc., etc.

Messrs. Ajax, Ltd., are also makers of Radiant Heat Baths in all forms, and will be pleased to send particulars of these and other Electro-Medical Supplies to doctors on application to their address.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Birth.

MORRISON.—On May 18th, 1924, at a nursing home, to Edward and Bertha (née Poole) Morrison, Ballintore Hill, Ferns—a daughter.

Marriages.

WILSON—SNELL.—On July 3rd, 1924, at Kilmington, Devon, Edric Frank Wilson, son of Mr. and Mrs. F. Wilson, of Acton, Middlesex, to Vera, youngest daughter of Mr. and Mrs. R. Snell, of Kilmington.

WARD—THOMPSON.—On July 8th, 1924, at St. Peter's Church, Harrogate, by the Rev. Cunningham, Herbert Read, only son of Mr. and Mrs. I. H. Ward, of Faversham, Kent, to Marian Kayss, daughter of the late T. B. Kayss Thompson, and of Mrs. Thompson, of "Oakgate," Harrogate.

Deaths.

Dr. W. H. SIMMONS, Medical Officer, West African, Medical Staff, and formerly of Guy's Hospital, died suddenly at Accra, Gold Coast, during the night of June 11th, 1924.

EDGAR ELLIOTT, late of Sevenoaks, on July 4th, at Sonning-on-Thames, in his 68th year.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *August 2nd, 1924.* *Number 941*

PASSIM

AUGUST at last, and with a sigh of relief we put aside our pen and prepare to take a holiday. Our pen is at best a poor thing. It was said, by the shopman who sold it, to be a "blackbird," but its beak has long since become crossed and though it often scratches it very rarely sings. Its throat has become clogged; it suffers from a species of thrush. Best put it aside in favour of a holiday.

August is the holiday month of all the hospital world. Physicians, surgeons, sisters, and students all flock away to Biarritz or Blackpool, or some other fashionable resort and enjoy their well-earned leisure. The overworked and the indolent alike take their ease. House Officers, who are tired out, need rest and change as much as house officers who are nearly always out, and away they all go. No longer do we hear men discussing their cases in the Park, and the dainty fare of the College table is rarely spoiled by nauseating details of indelicate diseases. The talk now is of fishing and sailing and the more plutocratic begin to say "grazia" and "merci" where their less cosmopolitan friends would say "all right, that'll do," or "no, take it away, for goodness' sake." One of the Staff we actually overheard talking about the Canaries, but as he is quite likely to be an aviculturist, this may have had no reference to the holiday season.

We have lately been much interested in a little book, containing a chapter on "change of air." It seems that the important point about any holiday is the air. If you are feeling enervated and depressed you must go to the East Coast to be braced, and if you are too energetic, to the West Coast to be unbraced. You must have a complete change from your usual surroundings and mode of living, and, if you are overworked, you must rest.

Now these instructions, though they sound very simple, are as misleading as the directions in a book of practical anatomy. "Dissect away the deep fascia and the cutaneous branches of the anterior crural nerve will come into view," say the latter; "go away to a restful seaside resort and you will have an ideal holiday," say the former; but both are equally elusive. Every quiet seaside resort is advertised as such, and immediately its peace is shattered by the agitation of the rest seekers. These come down on their motor cars and motor cycles, and even, in extreme cases, motor tricycles, and hoot and backfire along the seafront. They play tennis on the cliffs and cricket on the sands. They crowd and bump and hustle the other earnest seekers after rest during the daytime and "dance" in overcrowded hotels as long as they are allowed at night. We emphasise the word "dance," for that is the name which they apply to the curious, spasmodic, jerky and rather aimless movements into which they are thrown by the stimulus of the band.

We have been very worried by this problem of obtaining a restful holiday. To travel to some really restful spot, such as Mount Everest, is so expensive, that one needs to be financed by a learned society, and even Squadron-Leader MacLaren, in his attempts to get lost in various undiscovered parts of the world, has been unable to get away from the attentions of the newspapers. A restful holiday seems unattainable or did so seem until we found it waiting for us beside our very front door.

Considering its age it was wonderfully preserved and it waited there with doors flung wide, like two welcoming arms. We stepped in and the arms closed, enfolding us in its peaceful bosom. Oh what a luxury of feeling flooded our soul as we snuggled back into the soft cushions and looked up towards Heaven in gratitude! And as we looked a light came down from above, and through a sudden aperture in the black roof of our snug retreat we saw the full glory of the noonday sky. We sat marvelling at the wonder of it all, and half expecting an angel face to appear, which it did; at least, if it were not an angel face it was the next best thing, the face of our hansom-cabby. He enquired the way, but all roads were one to us and we said "Drive and drive and drive, and, when your good bay mare is tired, bring us back home." With an encouraging shout and a pretended furious lash with the whip, which imposed on nobody less than the old mare, we set off down St. Thomas's Street with a jingling of bells, the ring of hooves and good-natured smiles from all the passers-by. Here was rest indeed. No jolting, no hooting, no smoke. Perfect comfort, ineffable peace and a complete change of air. For at last we had found the way back to the serenity of the early sixties. We felt astonished at the unaccountable absence of our side-whiskers. "Come on, Steve," said the policeman on point duty, and on we went, our bells jingling merrily and clearly above all the roar of the street traffic. Where did we go? Who can say. Perhaps we ambled back through Golden Square, before the motor busses had driven it from London, or joined the carriages in the Park taking their lucky owners for an afternoon drive. Certainly we tried to leave the Park by the gate that said "IN," and had words with the constable. But it was like our cabman to try to do that. One gate was as good as another to him, and as for roads—if he saw a side street that caught his eye, he would turn and enter it, and not all the great throbbing monstrosities in London could prevent him.

It was a holiday, full of charm. Ever and anon the sky would open and the cheery whiskers of the guardian angel would demand which way next and we would reply "go to the right," or "to the left," or "straight on," at random, and life would seem too wonderful to last.

We are back now in the office, burying our "blackbird," and to-morrow we go away for our August holiday. The hansom-cab will be here early, and we shall leave before you are out of bed. For four glorious weeks it will be ours, "a bower, full of sweet dreams and health and quiet breathing," and when we come back we shall be so invigorated, we shall be able to treat with forbearance even the intolerable taxi.

▭

THERE are some situations that are so intense, that we lack the power to describe them. Such must have been the case when Nelson, ignoring the superior command, placed the telescope to his blind eye and ordered the battle to continue. How, then, can we write of the awful happenings of July 25th? With St. Thomas's needing only 106 runs to win, after the Guy's team had collapsed for 78, Chiswick was on the verge of an epidemic of neurasthenia. A temporary recovery was made with the fall of the eighth St. Thomas's wicket for 43, but after that terrible things were done to our bowling, and the ninth wicket did not fall until 94 had been scored and St. Thomas's only needed twelve runs to win. We make no attempt to describe the tension of the situation. The scorer bit his nails down to the quick and was unable to put his dots in the correct square of the bowling analysis. The last man in hit a four, two singles and a three, and the over saw the enemy wanting three runs to win. Durr bowled against the batsman who had already made so many. The first ball shaved the off-stump, the second was carefully played, but the third, cleverly turned in the air by the unseen hand of Thomas Guy, swept down the wicket and gave the day to Guy's. A victory by two runs after twelve years is the finest thing yet recorded in "Passim." The heartiest congratulations to Van Schalkwijk and his enthusiastic team.

Guy's Hospital Bicentenary Appeal.

Inaugural Dinner.

ON July 15th at the invitation of Lord Revelstoke, a Dinner was attended at 3, Carlton House Terrace, by the following :—

Rt. Hon. Lord Revelstoke, Mr. Cosmo Bonsor, Rt. Hon. Lord Queenborough, Mr. Whitbread, Mr. Trotter, Major Bonsor, Mr. Cecil Lubbock, Dr. Fawcett, Sir Alfred Fripp, Mr. Eason, Mr. Rowlands, Sir John Atkins, Mr. Seymour-Price, Dr. Cooper, Mr. Sheaf, Dr. Hurst, Sir Maurice Craig, Mr. Lambrinudi, Dr. Hammond, Dr. Reynell, Mr. Doherty, Sir William Hale-White, Mr. Wornum, Mr. Hopson, Mr. Campkin, Mr. Achner, Mr. Marsh, Mr. Zamora, Admiral Beadnell, Mr. Payne, Mr. Housden, Mr.. Curry.

The object of the dinner was to discuss the scope of the Appeal and to receive suggestions as to the best ways of furthering it. The meeting was of the greatest success, and those who attended it left not only with the feeling that the Appeal was bound to succeed, but with every intention of doing all that lay in their power to ensure its success. It was not intended to be an evening of rhetorical speeches, but rather one of general discussion, and the Treasurer stressed the fact that only once before in the history of the Hospital had there been a public appeal for funds. This was in 1896, when Sir Samuel Wilks collected £26,000.

It is for the present generation to get eight times as much, and who doubts that they will do it!

We are grateful for the following articles which appeared in "The Times," "Morning Post," and "Daily Telegraph."

Leading Article from "THE TIMES," *of July 7th*, 1924:—

"Guy's."

In the year 1722 THOMAS GUY, liveryman of the Stationers' Company, purchased immortality by founding a hospital "for the cure of sick and impotent persons." Three years later, on January 6th, 1725, a week after the death of its donor, "Guy's" was opened "for the reception of 400 poor sick persons or upwards labouring under any distempers, infirmities, or disorders thought capable of relief by physick or surgery." Next year, therefore, this great hospital, so intimately connected with the City of London, will celebrate its bi-centenary. The Medical School associated with the hospital will at the same time achieve its centenary. The occasion fully justifies the hope that the response to the appeal of the TREASURER made to-day in our columns, and endorsed by the PRINCE OF WALES, the President of the hospital, will be generous and sufficient. "Guy's" is situated in one of the very poorest parts of London, that surrounding the southern extremity of London Bridge, where there are few large employers, and where labour is to a great extent casual in character. The majority of the patients admitted are "far too poor" to contribute to the hospital's funds. Thus the institution, in spite of the strictest economy in administration, now has a debt of £160,000 on the hospital itself and of £40,000 on the Medical School. Such a burden constitutes a grave anxiety, and cannot but interfere with progress. It represents, therefore, a handicap on those who are fighting the battle against disease, and so must react unfavourably on the community as a whole. "Guy's" has played a very great and distinguished part in the advance of medical and surgical knowledge. It has laid the whole world under contribution by the researches carried on within its walls on kidney and other diseases; and it is no exaggeration to say that all who enjoy to-day immunity from sickness, or who have achieved recovery from their maladies, are in some measure its debtors. The great voluntary hospitals of this country represent, indeed, the staff colleges of the Army of Health. If they are permitted to grow weak all must share in the inevitable consequences. In appealing for help to pay its debts, "Guy's" is formulating no selfish demand. It is asking merely that a further investment shall be made in security and health. This strictly utilitarian aspect of the appeal ought to commend itself to the common sense of that business world to which the institution owes its being and a very large part of its sustenance.

Also the following article from "THE TIMES" *Medical Correspondent:—*

Guy's Hospital.

Two Centuries of Work.

Appeal Launched To-day.

BY OUR MEDICAL CORRESPONDENT.

Guy's Hospital, for which an appeal is being launched to-day, is first and foremost the child of the City of London, in the strict business sense of that term. Unlike many of the other great hospitals, it was never a religious foundation. A City merchant, Thomas Guy, liveryman of the Stationers' Company, and boldest of financial operators, built and endowed it. From that time, 1724, until the present day "Guy's" has looked to the City for much of its support and strength.

Thomas Guy, who was the eldest son of an Anabaptist lighterman, started in business on his own account at the corner of Cornhill and Lombard Street, but his shop has now disappeared. Almost from the beginning of his career he showed his philanthropic tendencies. Thus, having been elected member of Parliament for Tamworth, he presented an almshouse to the town, and later built a new town hall. Then he began to interest himself in a traffic which, in his day, was perfectly legitimate, though the memory of it is distinctly unpleasant. The seamen of the Royal Navy, then engaged in war with France, received tickets instead of their pay, and, as the Government's credit was not good, these poor fellows had often to sell their tickets at ruinous rates of discount—30, 40, or even 50 per cent. City merchants bought the tickets, taking the risk—by no means a negligible one that the Government might repudiate. Later, holders of these securities were invited to exchange them for shares in the South Sea Company. Guy invested £45,500 in the company. As the famous "Bubble" rose higher and higher he began to sell out and made an immense fortune.

Before this great wealth came to him he had been associated with St. Thomas's Hospital, then situated in St. Thomas's Street, and had built and furnished three new wards. After the South Sea Company transaction he resolved to found a hospital of his own. He obtained a lease of several parcels of land, and in 1721 the site was cleared. In 1722 the foundations were laid. Guy died on December 27th, 1724, just after the hospital had been completed and a week before the first patients were admitted. The statement that he himself intended his hospital to be an extension of St. Thomas's is incorrect. It is on record that "altering his resolution by the advice of his friends he constituted the government thereof independent of all others."

This great London merchant, and the other London merchants who have followed him in his work, have indeed achieved their aim. "Guy's" in its own way and sphere, is as closely and honourably identified with the City of London as are the Bank of England and the Stock Exchange. It has from the beginning played a splendid and decisive part in the history of British medicine. Three separate diseases are called by the names of members of its staff who discovered them, described them, and laid the foundations of their treatment—Bright's Disease, Addison's Disease, and Hodgkin's Disease. In the work of Sir Arbuthnot Lane on fractures and on intestinal stasis its fame as a surgical centre has been borne to the ends of the earth.

The hospital has always been a favourite with students from oversea coming to this country to qualify, and thus has exercised a profound influence on the medicine of the British Empire. It stands to-day in the fore-front of our great teaching hospitals as an institution perfectly equipped for the practice of modern medicine and surgery.

Leading Article from "THE MORNING POST," *July 7th,* 1924:—

Guy's Hospital.

In another column will be found a statement by the TREASURER of the Guy's Hospital Appeal Committee with regard to the Appeal for public support which this most famous of hospitals is making on the occasion of its bicentenary. That appeal is supported by his Royal Highness the PRINCE OF WALES, who, like his father and grandfather before him, is President of the Hospital, and we are sure that all men of good-will will join with his ROYAL HIGHNESS in wishing "good luck" to the efforts of the Appeal Committee. Few objects could be found more worthy of general support than the maintenance of Guy's Hospital in its present state of efficiency. The Hospital was "founded at the sole costs and charges of Thomas Guy, Esq." and was opened on January 6th, 1725. THOMAS GUY, it is interesting to remember, was one of the very few speculators to make a large fortune out of the "South Sea Bubble," and he certainly turned his fortune to good account. For the first 160 years of its existence the Hospital was maintained entirely from the funds provided by the original Founder, and from a subsequent bequest by Mr. WILLIAM HUNT. But the value of agricultural property diminishes, and the needs and aims of modern days have made a sad change in the position of this once liberally-endowed Foundation. To-day only about forty-three per cent. of the income required can be derived from the endowments—the remaining fifty-seven per cent. has to be found from other sources. In spite of this, Guy's Hospital has only made one previous public appeal during the whole of its two hundred years, a record which it may well be proud of. It cannot, of course, rely upon local support, for it is situated in one of the poorest districts in London, where most of the labour is casual and there are few large employers. No words of ours are needed to underline the value to humanity of the work carried on by Guy's Hospital. But we would lay stress on the fact that the support of a great modern hospital is something more even than an attempt to alleviate the ever-present evils of poverty and sickness. It means also the maintenance of a Medical School of long and high traditions, and the endowment of a Department of Research, the re-

sults of which bring back a thousandfold—as they progressively remove the causes of sickness and increase our happiness and efficiency—the money that is spent upon them.

Leading Article from "THE DAILY TELEGRAPH," *July 8th*, 1924:—

Guy's Hospital Appeal.

Guy's Hospital, one of the four largest institutions of its kind in London, with a splendid tradition of public service and professional training, is nearing the two-hundredth anniversary of its foundation, and the moment has been chosen for launching a general appeal to the public for funds to enable it to free itself from a heavy burden of debt before the actual date of the bicentenary. In the letter which appeared in our issue of yesterday, Mr. F. P. WHITBREAD, the new Treasurer of the hospital, set out the facts of the financial position of "Guy's." It is a familiar story to all who take an interest—and what man of humane feeling and public spirit does not take an interest?—in those great monuments of the British national character, the voluntary hospitals, where, entirely without assistance from any source, but the benevolence of the charitable, the care of the poor in sickness and the advancement of medical science are carried on with a devotion and success recognised throughout the world. It is a story not the less moving for being familiar, and it is a proud thought for us all that it is never told in vain. Even in these latter years, when the strain upon private resources is such as has never been known, the hospitals continue to be maintained, and increasing difficulty has been met by increasing efforts on the part of those whose task it is to enlist the support of the charitable public. With Guy's Hospital, as with others, it has been a point of policy to avoid repeated appeals for maintenance, and to work for permanent and adequate endowment of the institution, by means of which funds may be available not only for paying its way, but for those renovations and developments that from time to time are necessary in order to keep abreast of the unceasing progress of medical and surgical science. But the war, which destroyed directly so much priceless human life, still threatens the work of saving lives by the enormous increase it has brought about in the cost of hospital administration. A financial position which appeared hopeful ten years ago is now one of deep indebtedness. At that time a general appeal for the re-endowment of "Guy's," which had been launched in 1896 by its president KING EDWARD VII., then the PRINCE OF WALES, was well on its way to securing the half-million which, as matters stood, would have placed the hospital in a position of security. At the present time that fund stands at the figure of £472,704, but the hospital is burdened with a debt which, had the world been spared the losses of the past ten years would never have been incurred.

To-day the grandson of the Prince who inaugurated the appeal of 1896 is president of Guy's Hospital, and he has commended to the public, in the words quoted by Mr. WHITBREAD, this further general appeal, the second to be made in the course of two hundred years. How the necessity has arisen is explained by the treasurer in a phrase—"the immense increase in the cost of everything." To mention one detail, the most important, the cost of each individual patient, which remained practically stationary during the greater part of the last century and up to 1914, is to-day nearly double what it was in that year. At the present day, an aggregate deficit on maintenance of £52,000 has been incurred; and there is a further deficit of about £100,000 on the cost of extensions, re-equipment, and new buildings necessary to allow of the hospital's work being carried on with efficiency. Approximately £150,000, therefore, is needed to place Guy's Hospital on a sound financial basis, and this sum, supplemented by a sufficient fund to clear the balance of debt on the medical school, the PRINCE OF WALES and the Governors are asking of the benevolence of the public. "Guy's" is not a wealthy hospital by any means. Its total assured income from endowments is but £66,000, and it is dependent upon the donations of the charitable to the extent of more than £80,000 a year. It has certain special claims to consideration, for it is situated, as the PRINCE OF WALES has pointed out, in one of the poorest districts of London; "most of the labour is of a casual nature, there are very few large employers of labour, and it cannot rely upon adequate local support." It may be noted that the out-patient department is the largest in London; and the Hospital's general activities cover an enormous area, and are, as Mr. WHITBREAD quite justly declares, national and Imperial in their scope. There is quite certainly no work more worthy of generous support than that of this great centre of help and healing among the poor of South London; no object of charity in which a donor could feel more confident that his benevolence, to the last shilling, was of direct service to the community. There is inspiration in the very name of Guy's Hospital, founded as it was by a man who, amassing great wealth in business in the City of London, stinted himself throughout life of all luxury so that he could continue his benefactions to the London hospitals of his day, and at last build and equip his own. "Never had he his fellow," it was written of him, "in this kingdom, and perhaps in any other, for such great and extensive acts of benevolence and charity." It is a noble example that may well reinforce the knowledge in the public mind of the proved and inestimable value of the voluntary hospitals. In their foremost rank stands Guy's, as the PRINCE OF WALES has said; and we can do no better than cite in conclusion his commendation of its present needs to "that spirit of true generosity which has made possible the achievements of the past."

Also the following Article appeared in another column of "THE DAILY TELEGRAPH," *July 8th*, 1924:—

Guy's Hospital.

Its Present Needs.

Appeal for Help.

Among the important hospitals of the metropolis Guy's takes a deservedly high place, having been for 200 years among the pioneers of medical research, scientific treatment, and beneficent activity. At no time during its long and distinguished history has it stood higher in popular esteem than it does now, and

that fact should be a good augury of the success of its appeal for £200,000 to free it from debt and establish it on a firm financial basis. With the King as its patron and the Prince of Wales as its president, and with a board of governors as distinguished as it is influential, the institution should have no difficulty in raising the sum for which it asks. The wards and the medical school satisfy the most exacting demands of medical enterprise; its medical, surgical, and nursing staff is one of the most eminent in the land; and it fills a place in the thoughts of the general community of which the management may well feel proud. All that is wanted during the next few months is an intensive campaign, and that this will be conducted with initiative, originality, and energy is certain, having regard to those into whose hands it is entrusted.

As was pointed out in the columns of *The Daily Telegraph* yesterday, the hospital will celebrate its bi-centenary in January next, and also the centenary of the foundation of its medical school. It was on *January 6th, 1725, that the hospital*, "*founded at* the sole costs and charges of Thomas Guy, Esquire," was opened " for the reception of 400 poor sick persons or upwards labouring under distempers, infirmities, or disorders thought capable of relief by physick or surgery." The executors of Thomas Guy's will were incorporated by an Act of Parliament of 1725, and the hospital is still administered under the constitution laid down in this Act. The balance of Guy's estate available for the purposes of the charity amounted to £220,124, and on October 26th, 1732, an account for this sum was opened in the name of the president and governors. In accordance with the express wish of the founder and with the terms of the Act, these moneys were invested in "messuages, lands, tenements, fee farm rents, and other estates of inheritance," and from the rents arising from these estates in Essex, Herefordshire, and Lincolnshire the hospital was supported without appeal to the public for assistance.

The centenary of the hospital in 1825 was reached with the charity still amply endowed by the original foundation. In the early part of the nineteenth century Mr. William Hunt, a governor of the hospital, left in his will the residue of his estate to " the president and governors for the time being of Guy's Hospital," with a proviso that the governors should within three years after his death, extend the hospital in order to provide beds for at least 100 more persons than were provided for under the foundation of Thomas Guy. The funds which became available under this bequest amounted to £193,389. Until the end of the nineteenth century the hospital was entirely supported by the revenues arising from the combined endowments of Thomas Guy and William Hunt, but, owing to the steady decrease in the value of agricultural property, the income of the hospital gradually failed to meet expenses, and in 1886 a special appeal fund was opened. £116,402 was then collected, but appropriations were made annually from this fund to meet deficiencies in income, and in 1895 these resources were almost exhausted. In the following year, therefore, the Prince of Wales (afterwards King Edward VII.), as president, inaugurated an appeal for the further endowment of the hospital. This appeal, launched with the powerful advocacy of the Royal president, was immediately successful, and a collection of £114,347 for the new re-endowment fund was announced at a festival dinner in June, 1896. Five years later this fund amounted to £225,464, and by the continued efforts of the governors and staff it has at the present date reached a total of £472,704.

Effect of the War.

Judged by this brief financial history, the hospital cannot be accused of having indulged in many general appeals, and when it has appealed it has been for the further endowment of the hospital rather than for assistance in maintenance. The governors have always been of opinion that oft-repeated appeals for maintenance tend to dull the ears of the charitable public and to defeat their object. They hold that the sounder policy is to devote their efforts to the permanent and adequate endowment of the hospital, trusting that with due economy in its administration sufficient funds will be available not only for the maintenance of the institution, but for those enlargements and renovations which from time to time are necessary to keep the hospital abreast of the ever-increasing requirements of modern medicine and surgery. Had it not been for the Great War such would probably have been the case to-day, for from 1900 to 1914 the income of the hospital was, on the average, greater than the expenditure on maintenance; and with the sums thus saved, and with the assistance of generous donations from governors, from King Edward's Hospital Fund, and from private benefactors, large amounts were spent on the provision of a Nurses' Home, a central station for lighting and heating the hospital, a laundry, a new out-patients' department, and new operating theatres and on numerous other enlargements and improvements; the capital expenditure on building extensions, renovations, and improvements from 1895 to 1920 amounting to over £366,771. The war altered the whole outlook. From 1836 to 1914 the cost to the hospital of each individual patient remained practically stationary at £6 10s.; since the latter year it had risen to £11 16s.. In 1913 the expenditure was £73,574; in 1923 it rose to £154,000.

Since 1919 there has thus been, despite an important increase of income, an aggregate deficit on maintenance of £52,000, and it is this sum, as well as a much larger one provided by loans, that the governors are trying to raise. In recent years, owing to the increasing stress of the medical and surgical services of the hospital, and the consequent increasing strain upon the nursing staff, it has been found necessary to shorten the hours of duty for nurses. This has meant a considerably increase in the nursing staff, with a corresponding demand for increased accommodation; in 1919 it was therefore decided to enlarge the Nurses' Home, and at the same time to add premises where there might be incorporated many of those features which the war had shown to be necessary in the most up-to-date healing institutions. Thus, in addition to a larger Nurses' Home and preliminary training school, a new massage department, a training school for massage pupils, and an enlarged department for curative treatment by X-rays and other forms of light and electricity have been established.

These improvements entailed outlays amounting to £90,000, whilst other extensions have swelled the ex-

penditure to a figure which now compels the Governors to ask the public to contribute £200,000. This is not a large sum, when the extent of the beneficent work performed within the walls of this hospital is considered. In none of our great hospitals is the merciful work of healing the sick more nobly and unselfishly performed than in this old foundation, and the public may rest assured that their contributions towards the sum now aimed at will be well and wisely used for the relief of suffering humanity.

Reviews.

General.

Reaction in Relation to Disease. By H. A. ELLIS, B.A., M.B. Published by Messrs. H. K. Lewis & Co., Ltd., London. *Price* 1*s. net.*

THE chemistry of the body is receiving a good deal of attention, and indications are not wanting that further advances in medicine will be made possible by the knowledge acquired from this quarter.

The claims made in this paper are rather ambitious —tuberculosis, cardiac disease, renal disease all depend upon whether one is acid or alkaline.

It is shown that the majority of tuberculous patients are "sub-acid" or "alkaline," and in the acid group are included the cardiac disease cases and the high blood pressure group.

In supporting his contention, the author draws his illustrations from the animal world.

The "acid-producing," quick moving type, *e.g.*, the dog is known to be immune from tubercle; the plethoric slow metabolising "alkaline" cow is prone to tubercle.

The paper is interesting, but the conclusions as to the acid or alkaline diathesis, are only advanced tentatively, until the subject is studied in greater detail.

Practical Nursing. By the Late H. E. CUFF, M.D., F.R.C.S., and W. T. GORDON PUGH, M.D., B.S. Published by Messrs. William Blackwood & Sons. *Price* 10*s.* 6*d. net.*

THE original edition of this book was published when text books for Nurses were not so frequently written. The present (6th) edition has been rewritten by Dr. Pugh, who has maintained the clear practical character of the original work with singular success.

The book now covers hygiene, dietetics, medical, surgical and practical nursing, midwifery, gynæcology and fevers.

Nurses studying for the State Examinations would find this book of great value.

The Insulin Treatment of Diabetes. By P. J. CAMMIDGE. Published by Messrs. E. & S. Livingstone, Edinburgh. *Price* 6*s. net.*

DIABETES is a complicated and difficult subject enough, for the student to master "to the satisfaction of his teachers"—the introduction of insulin has made it more so for him—as well as for his teachers. Insulin and its method of action is so imperfectly known; its literature is so large and inconclusive, so many new graphs of divers shapes, are constructed that an attempt to understand the subject, except by a pure chemist, is doomed to failure.

The title of the book, and the fact that the writer is one of the accepted authorities on diabetes, gave promise of an authoritative account of the practical application of insulin.

A short account of the history of the discovery and preparation of insulin is given, and its action, both on the actual metabolism of glucose and on the liver, is demonstrated. The author differentiates three types of "diabetes":—

1. Primary pancreatic disease.
2. Primary disorder of the organs of internal secretion.
3. Primary liver disease.

He describes his method of differentiating these, but this section is rather difficult to follow and understand.

That proper dieting is still the basis of the treatment of diabetes is insisted upon, insulin being but an important aid. The indications for the administration of insulin, and the regulation of the quantities given, are clearly stated.

At the end is an account of the laboratory methods of the estimation of sugar in the blood and urine with an indication of those favoured by the author.

The book is on the whole very readable and contains much that is not in any text book of medicine, however recent. It should prove helpful to both students and to practitioners, who are called upon to treat diabetes.

Papers by Guy's Men.

John A. Ryle, M.D., F.R.C.P. An Address on Chronic Diarrhœa.—*Lancet*, 1924, ii., p. 101.

Notices.

A DENTAL Surgeon in South Africa wishes to dispose of his practice which at the present time realises an income of £1,200 to £1,400 per annum. The practice is still progressing and there is plenty of scope. The vendor is leaving South Africa in the near future and is anxious to sell his practice at the earliest opportunity. Further particulars at the Medical School Office.

The Fourth Year's Prize in Dental Subjects has been awarded to Mr. G. W. Dibble.

Publications Received.

The Research Defence Society's Annual Report, The Medical Review, The St. Mary's Hospital Gazette, The University College Hospital Magazine, The Nursing Times, The British Medical Journal, The London Hospital Gazette, The Long Island Medical Journal, The Charing Cross Hospital Gazette, The Organotherapeutic Review, The Antiseptic, The M.S. Journal, The Indian Medical Gazette, The Middlesex Hospital Gazette, The Hospital Gazette, The Stethoscope, The Queen's Medical Magazine, The Hospital and Health Review, The St. Bartholomew's Hospital Reports, The Journal of the Architectural Association.

The Whirl We Live In.

[Being an impartial and accurate account of the activities of the Nurses' Home.]

By T. G. S. M.

DID you ever know Saturday fortnights to come round so quickly? Almost before I have finished writing for one GAZETTE it is time to start on the next.

I wish I could write clever things like the man wrote "A Glimpse of the Future." Which reminds me that in that fantasy he alludes to the nurses of the past (which I presume are the nurses of the present, since the cap fits so well) scuttling "like rabbits out of the Colonnade on their afternoons off." Well, there are times when one would much rather be a wee fluffy rabbit away out in the fields, free from the cares of "this sorry scheme of things," but the question is—to scuttle or not to scuttle! or if we scuttle, why do we? There must be some reason for scuttling!

I can remember well the times I have sauntered through the Colonnade arrayed in my "unofficial costume" and smiled sweetly (at least I thought I did!) into the faces of some of my favourite ward clerks, or dressers, as the case might be, and well I remember the feeling of horror and indignation when I was met with blank stares! It has happened so many times that I now bend my head to avoid such incidents spoiling my afternoons!

Then again, how many times I have promised to be in London Bridge Station Yard by 2.30 p.m.; and coming off duty late, through helping the selfsame dressers I meet in the Colonnade, have had to dash out as quickly as I can! And who, when she has a complimentary ticket for a matinee, cares to miss a moment of the play? Again we scuttle! On returning we preserve our dignity and the dignity of our profession by walking quickly through the quadrangle and Colonnade—for dignity never runs!

Perhaps the fathers of the next generation may say "there was a time when nurses were afraid of being seen by students in their unofficial costumes," but I think the mothers will tell a different story.

Somebody had drawn a wonderful poster announcing that the Nurses' Swimming Gala was to be held on July 22nd at 8.30 p.m. So to be in the swim of things I simply had to go down to the baths to see what was happening.

It was a wonderful scene; garlands of roses festooned the walls and hung from the balcony; and shaded lights were reflected in the water; a veritable fairyland complete with hidden orchestra and water nymphs.

The first event was the competition for the Fripp Cup, which was well won by Nurse P. Holmes.

Then Miss Fripp showed us how to swim and did some stunting in the water, which made us gasp in wonder. The uniform race was funny. The competitors had to dress in uniform, dive in and swim to the other end; a great many secrets of how to dress in two seconds were given away!

There were shouts of mirth from the onlookers during the obstacle race. You had to swim a bit, then bite a bit out of an apple hung on string with your hands behind your back, swim to the other end, thread a needle, and then dive to the bottom for a plate. I felt sorry for the nurse with a small mouth who met a big apple!!

The baths have never been so crowded by spectators, indeed it was difficult for everyone to see, and the orchestra, hidden in the balcony, solved the difficulty by lying prone on the floor and pressing their chins well down on the ground. They could see quite a good deal of the bath from there.

Amongst those present were Lady Fripp, who presented the prizes, Matron and Assistant Matron, and Miss Daly, who judged the swimming.

Mr. Jarman gave a display of expert balancing on the diving board while doing most nobly the duties of M.C. What exactly his duties were I don't know, only I know he was there.

Great praise is merited by Sister Esther who works hard as the head of the Nurses' Swimming Society and was responsible for the decorations. It can truly be said that it was one of the most successful Galas ever held in the Nurses' Home.

The tennis final is on Thursday, which will be too late for me to say anything about now. Except, perhaps, that the supporters hope to go in a charabanc, which rather adds to the excitement, don't you think? People always look so "treatified" in charabancs, sort of hang over-the-side-and-blow-trumpet spirit about them. I've never been in a charabanc; I know I'll want a little flag and a trumpet to blow if I do go!

The Surgical Treatment of Empyema.

The Physical Society's Prize Paper for Last Season.

BY ERIC WORNUM, M.R.C.S., L.R.C.P.

GENTLEMEN,—I should have liked to-day to have given a brief history of empyema, starting with the days when empyema were not treated at all until the rib-resection and decortication of to-day. I am afraid, however, there is no time for that, and I am going to confine myself to the surgical treatment, especially in chronic empyema, rather than to empyema in general.

I am sure there is no need to describe what we mean by an empyema. It is only another name for suppurative pleurisy, which, in the majority of cases, although certainly not all, is due to the Bacillus Pneumococcus. Every pneumonic process which approaches the surface of the lung causes at least a localised pleurisy. Slight inflammatory processes in the pleura may heal completely, or an abundant purulent exudate persists for a time and becomes walled off and surrounded by a dense fibrous capsule. The pus is nearly always thick and odourless, and it may have fibrinous or jelly-like masses floating in it, and layers of greenish, yellowish lymph are deposited on the cavity walls. Great quantities of this purulent fluid can accumulate compressing the surrounding lung and ultimately requiring surgical aid.

The commoner causes of empyema are familiar to us all. I feel sure that all cases of empyema are secondary. I have heard of so-called primary cases, but surely that is because the primary cause, the actual septic focus, has not been found. I have come across quite a number of cases in some old reports where there is absolutely no previous history to suggest it being secondary to anything. There was one under Dr. Pye-Smith in 1895 when a man of 40 years old was admitted because he was suddenly seized with a sharp pain in his side. An empyema was found containing several ounces of pus. In another case under Dr. Taylor in 1899, a man of 62 years had had a cough off and on for a year when he suddenly became short of breath. He was admitted and five pints of pus liberated. I could quote a number of these cases, admitted because of a sudden onset of pain or dyspnœa, where obviously the question had been deliberately asked and no history of any ill-health could be obtained. But after all the criterion of ill-health is only pain, and I am sure most of these cases were secondary to a pneumonia which the working-man had passed off with nothing more than a slight discomfort to which he paid no attention. One cannot prove that, of course, and there may be some here to-day who may believe in primary empyema, and it would be interesting to hear their views and their theory of the causation.

Pneumonia is by far the commonest cause to-day, especially a pneumonia which has followed on a previous influenza. Tuberculous empyema is not common. During the war we got the open wounds and septic hæmothorax. Septic empyemata do to-day sometimes follow operations, and tonsillectomy cannot altogether be excluded as a cause.

The diagnosis and localisation, especially in extent, is not always easy. I am afraid I cannot speak from much personal experience, but from what I have read and heard discussed I feel sure too much reliance is placed in auscultation and percussion, and the needle is too long delayed.

Sir Samuel Wilks told us at Guy's in 1874 that whenever the temperature remains elevated or the lung remains dull after the crisis in pneumonia the pleural cavity should be explored by a needle. Guy's has lived up to this, and we are taught to needle early, but how many cases do we see of patients admitted with an empyema ten or twelve weeks after pneumonia and with a history of continued pyrexia ever since the pneumonia and yet not needled once. If an empyema is going to establish itself after pneumonia it will do so generally within the first two weeks after the crisis, and yet, as I say, I have actually seen cases admitted twelve weeks after, where if they had only been needled about two months previously the patient would have been saved a great deal of time in recovery, and any permanent disability would perhaps have been prevented.

After all, the physical signs that fluid may

give must be dependent upon the lung underneath, and if you do not know the condition of the lung underneath can you always be certain of your diagnosis? All changes in the pleura are secondary to the lung condition. You will never find a thickened pleura with a healthy lung underneath. The lung surrounding an empyema is firstly collapsed and secondly compressed. Although the pressure may be negative—and I believe in an adult as much as a pint and a half of fluid can be secreted and a negative pressure maintained—the elasticity of the lung is lost, and it becomes airless and collapsed. When the fluid is released the lung is free to expand again. When, however, still more fluid collects, the surrounding lung becomes compressed. This causes a much more serious result in that the blood supply is affected and may be altogether stopped. Instead of the blood circulating, it will not circulate at all, it is squeezed out, the epithelial cells desquamate and ultimately we get the fibroid lung.

Let us assume we have diagnosed our empyema. We have needled and found pus; what is going to be the next step? Here I believe opinions may differ, and in the discussion which takes place afterwards it will be interesting to know the opinions of those present. I think it is an important thing to establish the identity of the organism from the first needling—this will occasion a small delay before operating, but does that matter? What is the urgency for operation at all? Does it not depend entirely upon the extent of the empyema, or, in other words, upon the pressure it is exerting? If the chest is full up to the clavicle or the heart at all displaced, there should be no delay at all. But the urgency is entirely due to the pressure, and aspiration will immediately relieve that. Once the pressure is relieved there is no urgency. Therefore I cannot agree that a delay of 24 hours or so before operating can be of any disadvantage, and in some cases, where the patient is really ill or has empyema on both sides it is the sound and correct procedure. I repeat, then, first establish the identity of your organism, and if it should give a pure cultivation of the pneumococcus, is there any need to operate? Will aspiration alone be sufficient? There is undoubtedly a modern tendency towards this method, especially in children, although it is done to adults too, and I understand the results have been very successful. The unsuccessful cases have been those which are not purely pneumococcal, but have a mixed or streptococcal infection. In those cases it is undoubtedly wrong, but I do think more attempts might be made in the pneumococcal cases of aspiration alone. It means a great deal to the patient. A rib resection is not a comfortable operation—these patients are not the best subjects for anæsthetics, and the risk of secondary infection and chronicity must always be remembered. At the Evelina Hospital incision between the ribs only is largely done. This is a difference in degree, but the results are decidedly good. At the Lambeth Infirmary Dr. Stebbing does not believe in aspiration. He treats empyemata as emergencies, and the full operation is done at once. I agree there is a great deal to be said on the other side. It is argued that in any case you have a localised collection of pus which is completely shut off. Is it not better to open this throughly and allow clear free drainage? Again it is stated that there may be loculated collections of pus which escape the needle, but this may also happen when rib resection is done. I would like to know what the opinion is on this point, but I do believe a great many successful cases of aspiration for purely pneumococcal infections have been reported, and practice is better than theory. May not the experiment be tried here—the results if successful would be a great step forward, and if unsuccesful—well, it should not mean anything more serious than a little delay.

I am not going to describe in detail the ordinary rib resection that is done to-day. I am sure it is familiar to us all. Its advantage upon the old method of making an incision between the ribs must be apparent. I should like in passing to mention Sir Arbuthnot Lane's name in this connection. I believe he was the first surgeon to resect a portion of rib as the initial treatment for empyema. He gives his description in the "Guy's Hospital Reports," vol. xli., 1883. In his account he mentions that previous rib resections were done for chronic empyema, but the beneficial result was attributed to the chest wall falling in and the approximation to the retracted lung, rather than to a more perfect system of drainage.

Peitavi attributed the closing of the cavity to the free drainage rather than to the falling in of the ribs. Thomas, in the "Birmingham Med. Rev.," 1880, describes eight cases in which portions of one or more ribs were re-

moved, but he attributes his results rather to the falling in of the ribs than to the substitution of good for imperfect drainage.

The use of rib retractors, enabling, if necessary, the operator to get his whole hand into the cavity and so breaking down any adhesions or loculated collections is of great value, and causes no inconvenience to the patient.

The choice of anæsthetic varies. I believe oxygen and warm ether commends itself to most, although Mr. J. E. H. Roberts, who has operated upon some 500 cases of early empyema, states that he had his best results with gas and oxygen and a local anæsthetic.

I am now coming to the question of washing out the cavity and of the dressings to be applied, and that is the chief substance of this paper. The after-treatment of empyema may make or mar the result. Up to this point the operation I have so briefly alluded to invites no criticism, but what of the after-treatment?

To describe this satisfactorily I am going to leave the question of treatment of early cases of empyema, and I am going on to the chronic cases. I think we have all seen those cases of old suppurating pleural cavities. Why do they become chronic? Why do we still find cases which have been suppurating for months? We know the often tragic results of these cases. Suppuration cannot go on for ever, and sooner or later lardaceous disease will set in, or even if that is avoided we get the fibroid lung and the associated bronchiectasis resulting.

Is it anything to do with the treatment in the early stages? My answer to that is that in my opinion I think it is. All cases of empyema, certainly pneumococcal empyema, ought to be healed and cured within a month.

In order to explain the principles of the after-treatment better, may I be allowed to mention here a particular case. A boy, aged 5 years, was admitted to this hospital in January, 1923, with the following history. In July, 1922, he had his tonsils and adenoids removed at a Cottage Hospital. Three or four weeks later he developed an empyema, and this was operated on—the cavity opened and a drainage tube inserted. He was admitted here, as I say, in January, nearly six months later, still discharging a copious, thick, and foul-smelling fluid. He was operated on again, and still more rib was resected and a drainage tube left in. A purulent discharge still continued. Towards the end of April, nearly three months later, I came across this case as a clinical. I became particularly interested in him. Here was a boy who after nine months had a wound still discharging as freely as ever, with no signs of healing.

He had had two operations, and the usual dressings and hospital care. Why wasn't it healing? And what was to be done? The boy looked ill—he had continual bouts of pyrexia, and the discharge was foul-smelling. Added to this he had a large bronchial fistula. It is difficult to imagine a much worse case—if he had been an adult I doubt if he could have lived. A nine months' fœtid empyema, copiously discharging, and a bronchial fistula, marked clubbing of fingers and toes, and his heart displaced three-quarters of an inch, are a list of symptoms not to be ignored or left. It was a fascinating problem which inspired one to act.

My first attention was directed to his dressings. He had a tube in—he had the usual sterile dressings and bandage—but I very soon noticed the discharge was such that the dressings were quickly penetrated and the sheets soiled.

Now as we all know, it is the essential part of Listerism that the discharge should not penetrate the dressing or spread beyond it. Yet one often sees in empyema the dressings penetrated and the sheets soiled, and the secretion exposed to secondary infection. That, I think, is an exceedingly important point. If a dressing is once penetrated it is no longer sterile, and it is only a matter of the smallest fraction of time for infection to spread in from without. I feel sure that a great number of purely pneumococcal empyemata become secondarily infected through the dressings. This leads to a mixed infection, which we all know is far more serious, and which is generally the forerunner of the long suppurating cases. To-day I am going still further, I am convinced that not merely should an empyema have sterile dressings, but antiseptic dressings, and the discharge should never be allowed to penetrate. Much more attention was paid to this about 25 years ago than it is now. When the Listerian period was at its height the treatment of these cases showed great improvement. The old reports upon empyema cases make instructive reading. May I mention one. It was a case under Dr. Taylor in 1899 of a man of 62 years who was admitted with an empyema. A portion of the fifth rib was resected, 5 pints of pus were evacuated, and the

cavity was washed out with sterilised water, a tube was inserted and the wound dressed with iodoform gauze and blue wool. The dressing was changed four times during the night as there were signs of penetration. The operation was done on the 12th May—tube omitted 23rd May. No discharge, and wound nearly closed on the 25th, and he was discharged on the 28th May; that is to say, within 16 days of his operation. That is a good record, and it is not a picked case. If time allowed I would quote several more, but in all these cases of about that time mention is made of washing the cavity out with sterilised water or boracic lotion. Iodoform gauze and blue wool was always applied, and the average time was about three or four weeks before discharge. It is of common occurrence amongst these reports to find that the dressings were frequently changed three or four times during the night. I do not think that is done so much now. We have passed from the antiseptic period of Lister to the aseptic period of to-day. In my very humble opinion I do not think the change is for the better, and I am hoping that point will be discussed when I have finished this paper.

Accordingly in the case of this boy I substituted antiseptic dressings for sterile ones. I used a sterile sponge directly over the wound, then cyanide gauze, wool and a layer of G.P.T., the whole kept on firmly by a special bandage. I mention this bandage because I think the principle is right. For nine months this boy had had a tight bandage round the whole of his chest night and day. It is bound to limit his breathing to a very serious extent, especially when used for such a long time and for a case where expansion is so important. Would any healthy individual here like to have a tight banadge round his chest for nine months? Some bandages were very kindly made for me in the ward. They are to all intents and purposes the ordinary many-tail bandage with elastic at the back. I am sure it makes a great difference to the patient, and I have used the principle on other empyemata since. You have only to watch the elastic stretching at each inspiration to realise it has a practical value. It definitely allows freer movement and greater comfort.

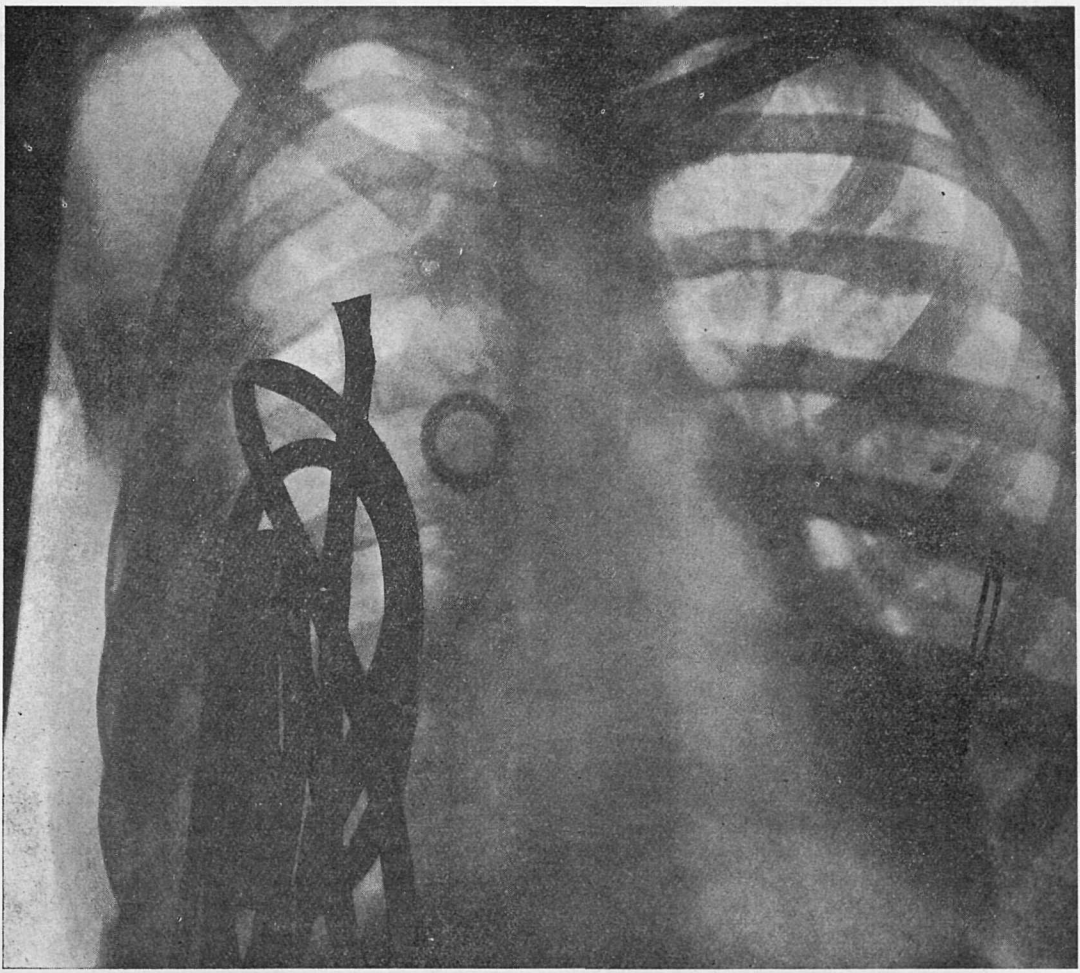
Having, then, satisfied myself that I had as practically as possible prevented any infection from without, I next explored the cavity. Ordinary X-ray does not give good pictures of empyema, and something more drastic in the way of bismuth is necessary. You could not use bismuth in this case owing to the bronchial fistula, and a good picture of the cavity had not been obtained. Generally the extent can be fairly accurately defined by a curved probe or sound. Before X-ray this was the only method, and it is used largely now, but of course it does not present such a graphic result as an X-ray plate. To ascertain the exact dimensions of a cavity is of the greatest importance. One must know whether it is getting smaller, or in other words whether the lung is expanding—that is what one is aiming at. In this case I used a thin-walled rubber tube about 4 feet long, filled with bismuth, and tied at each end. It is introduced sterile into the cavity. It curls up inside, causes no pain, and some most satisfactory plates were taken. I have here prints of these plates taken anteriorly and laterally. I will pass these round and also the type of tube used.

This method I learnt from a most instructive account, by Sir Charters Symonds, of the Surgical Treatment of the later stages of empyema from gunshot wounds and other causes, published in the Medical Society's Transactions. He quotes a number of cases from the Alexandra Hospital, Cosham, and deals with the various stages of chronic empyema, decortication and value of antiseptic dressings. He very kindly lent me one or two X-ray prints of cases there, and I will pass these round too. Some show the tube in and others the cavity itself filled with bismuth.

Having changed the dressings and having got a fairly good idea of the size of the cavity, I was anxious that decortication should be attempted. On May 1st this was discussed, but for the time being further rib resection only was thought advisable, and this was done. He did well after the operation, but a very thick purulent discharge was still coming away, and on May 4th I started irrigation. A fluid was inadvisable owing to the fistula—the moment you introduced fluid he brought the actual fluid up out of his mouth. I had tried it with Flavine, so I irrigated with oxygen. I must say this irrigation with oxygen was most satisfactory. I mark it down as the turning point of this boy's illness. The discharge rapidly became very thin and of a bright green colour. On the 9th of May, or after five days of this treatment, a cultivation of the discharge gave the bacilli pyocyaneus only. I thought

this a great triumph. Unfortunately a cultivation had not been taken before, but the discharge had so altered in character, it had been so thick and foul smelling that I am certain it was a mixed infection before this irrigation. Altogether after about a fortnight of antiseptic dressings and irrigation with oxygen the whole character of the empyema had changed. He steadily improved, and it was soon a matter of a very little thin greenish fluid that came away at all. The pyocyaneus is not a serious bacillus, and can frequently be ignored, but what one was faced with now was how to fill and close the cavity.

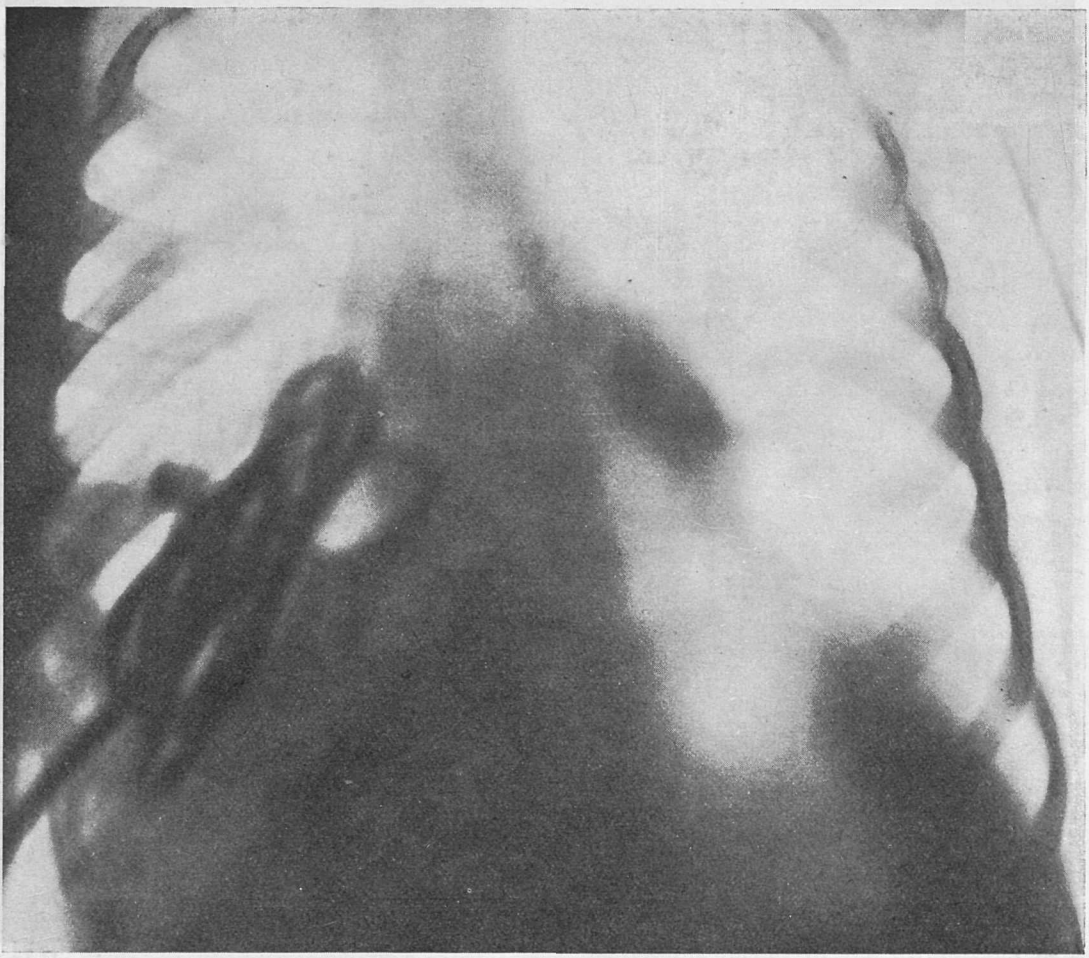
On the 25th May another operation was decided on, and an attempt at decortication was made. This unfortunately was unsuccessful. It was one of those types of chronic empyema where the adventitious layer is part and parcel of the visceral pleura and the two could not be separated. The adventitious layer was however, scored and incised in a criss-cross manner almost all over with the hope that this would allow the lung to expand and so close the cavity. A tube was reinserted and the wound closed.



Radiogram showing bismuth tube in lung cavity.

After this operation I again tried irrigation, this time with Flavine, but I found it no use owing to the fistula. He coughed the flavine out of his mouth. I next poured some flavine into a bottle fitted with a nasal spray. I put the spray into the opening and satisfactorily

sprayed the cavity. This proved successful, and caused him very little discomfort. He made good progress, and by June 7th the discharge had almost stopped when he got diphtheria. This I am afraid put him back a little, and he was too ill to have anything more than clean dressings, but after about a fortnight he got over this and I examined the wound once more. I felt sure the dimensions were less, and that the lung was expanding. I ceased using Flavine, and used Dichloramine T. instead. This is an oily preparation, and when sprayed into the cavity I am sure it adhered to the walls better than Flavine, and it is a stronger antiseptic. He got rapidly better, and the discharge practically stopped. I might add that during the whole of this time, except when he was running a temperature immediately after his operations, the boy was up and running about. I am sure exercise is a splendid help, and I was particularly anxious for him to use his lungs. I endeavoured to get him given breathing exercises, but here I met with certain difficulties. I was told that breathing exercises could not be given with his bandage on and his tube in. They must both be taken off. I quickly saw all one's aseptic and antiseptic precautions wasted and the value of the elastic bandage not appreciated. That bandage allowed any amount of movement. The tube was fixed in a certain way which I am going to describe and, most important, it was only just long enough to go through the parietal wall. I was told that even if the ban-



Radiogram showing bismuth tube in lung cavity.

dage difficulty was overcome the tube would cause pain by the expanding lung pressing against its inner end. This cannot happen if the tube is only the length of the thickness of the parietal wall. However, I bought him some balloons and I offered him a penny for each balloon he could burst by blowing. I believe the result was good. At first he was unable to burst any, but within about a week he started bursting them, and soon it ceased to be a financial proposition at all. Early in July the cavity was practically closed, and I removed his tube, and on the 21st July he was discharged healed. It may be too early to say how permanent, but certainly he had no longer a large suppurating cavity, and he was very well and fit in himself.

I mention this case rather at length because I do think it rather successfully demonstrates the principles, and it is far easier to speak from cases one has had first hand knowledge of rather than from hearsay or reported cases; and I am sure it shows the value of antiseptic dressings. These I changed the moment there was a sign of the discharge spreading beyond or from underneath the G.P.T.

A small point may here be mentioned. The skin surrounding this wound being continually in contact with a certain amount of discharge becomes very sore. A thick layer of pure zinc oxide ointment most satisfactorily prevents this. This ointment can occasionally be cleaned off and freshly applied. I now come to the tube. The fixing and the size of the tube is most important. Frequently I am sure too small a tube is used. I used one of three-quarters of an inch in diameter, and whilst on this point may I be allowed the time to read a short history of a case reported in Sir Charters Symonds' account. He states:—

"A young officer was taken ill on October 14th, 1918, with pneumonia.

On November 2nd a right-sided empyema was drained at a Naval Hospital, a large tube was used and the pleura was irrigated. In five days the tube was removed and for a month he was dressed twice daily, some 12 ounces of pus coming away in the morning and 6 to 8 ounces in the evening. Then a small tube was inserted and gradually increased in size.

In January, 1919, a larger tube was put in under ether and left in *one* day. The temperature was raised and having been up for two or three weeks he had to go to bed. Dressing was still required twice a day.

On March 2nd the opening was enlarged and a tube about the size of a lead pencil introduced. In June he went to Scotland, where he put on a stone in weight and the discharge decreased. This hospital closing, he was sent to Bournemouth. Here the discharge became abundant; he lost weight, and on January 5th, 1920, he was transferred to London, where he came under my care. He was thin and pale, the chest collapsed, and there was a large suppurative cavity, 14 months after the original operation.

The unfortunate management of the post-operative treatment, in the removal of the tube, is responsible for this result. It seems inconceivable that with profuse discharge, an elevated temperature and loss of weight, the necessity of continuous drainage was not recognised. It shows the mistaken views held by some practitioners with regard to empyema."

I think that is an instructive case. What is the use of resecting a piece of rib and making a fairly large opening if advantage is not taken to insert a large tube to maintain free and easy drainage. The method of fixing the tube is also of some comfort, if not of importance, to the patient. The tube wants to be so fixed that it can neither slip into the wound, an accident which sometimes happens and is a cause of recurring empyemata, nor slip out of the wound. In the latter case the wound opening rapidly narrows so that a fresh drainage tube of equal size cannot be reinstated without an anæsthetic. At the same time I feel it should not be fixed by tying it with tapes going completely round the chest. This must hinder proper breathing and expansion of the chest. A useful way is to attach the tube to two pieces of plaster stuck on to the chest wall about two or three inches on either side of the wound. This keeps the tube in position; it is not altered or dragged on by movement, which is a thing to be encouraged, and it is easily changed. The length of the tube should not be more than the thickness of the parietal wall. It is sometimes asked when should the tube be removed? I think the answer is, when the wound is clean and the lung has fully expanded against the parietal wall. I do not think irrigation need be feared. One hears frequently that it is not without danger. I believe this has been disproved, and what fatalities have occurred have been associated with cerebral abscesses. The wound should not be syringed with sufficient force to produce pressure in the mediastinum. Hydrogen peroxide

I believe is what is most commonly used, but that may be left to individual choice.

In Sir Arbuthnot Lane's account he states as a method of procedure after opening the cavity: "The cavity is then thoroughly cleared of its contents, examined and washed out."

In almost all the cases of empyema at this hospital from about 1883 to 1900 I see that the cavity was washed out with sterile water or some weak antiseptic at the initial operation, with the one reservation "after the cavity was examined." This refers to the fact that was the cavity completely shut off from the rest of the pleural cavity? One naturally would not wash out a cavity if by so doing one ran the risk of spreading the infection.

In cases of complication by a bronchial fistula, fluid cannot be used, and here I think oxygen is excellent. This can either be used pure or bubbled through some mild warm antiseptic. This treatment has the additional advantage that it can be carried out by the bedside. A cylinder of oxygen can easily be attached to a tube going into the wound through the dressings.

I do not think the method of draining by prolonging the tube and immersing the end into a bottle of antiseptic fluid by the bedside is very satisfactory. It sounds splendid in theory, but surely in practice an air-tight connection through the parietal wall is impossible, and if this is not obtained its principal object is defeated. The wound is difficult to dress and the chance of secondary infection increased.

So far the treatment I have mentioned is applicable to early empyema—antiseptic dressing done under perfect aseptic conditions—a large tube and antiseptic irrigation. But supposing in spite of this the empyema cavity still persists, or suppose one is confronted with an old-standing cavity, what measures can be taken to close that cavity? And how long are you going to wait before taking any measures? Operation is the only method, and in these cases about four conditions of the lung have been found. The operation aimed at is decortication, the object being to strip off the adventitious layer and so allow the lung to expand.

The first type of case is the early case where the adventitious layer strips off easily. This exposes an unbroken and glistening pleura. The lung fills the cavity and recovery is rapid. The next, a little later case where the lung has been compressed for a longer time, the adventitious layer can be stripped off, but the expansion is not immediately permanent. Good results have been obtained from this kind of case, but it takes longer. In the third variety some of the pleura is unavoidably detached with the adventitious layer. Dark red airless lung tissue rises up into the cavity, but it is doubtful if it ever becomes aerated or useful. The fourth is the type of case I have just mentioned, in which the pleura and adventitious are so adherent as to be one. Incising this may help to a degree and allow the lung to expand. It will be interesting to know in a few months' time how this boy has got on, and if there is any cavity still there.

If decortication cannot be carried out, the chances of closure are either by collapse of the chest wall, or by filling the cavity with muscle. Collapse of the chest wall by such an operation as an Estlander has not proved very satisfactory, and I do not think the results justify undue haste in deciding to do this. Muscle flap fillings have, I believe, met with a certain amount of success. The thickened pleura should be removed from the thoracic wall in those cases where muscle flaps are used. A compromise of the two has been done where the ribs covering the cavity are divided at intervals of an inch, preserving the muscles and periosteum, and finally severing the ribs at the limit of the cavity, a flexible bony flap will result which can be laid against the lung. This is impossible when the apex is involved, as the first rib cannot be touched, but cases are reported from Cosham where muscle transplantation has successfully closed the cavity in these cases. In some cases inserting the hand into the cavity and freeing the lung has considerably helped expansion, and this should always be tried. Hæmorrhage in these operations does not appear to be of much importance, and I have not found any case mentioned where there has been any anxiety from this. Although there is no doubt much that may be done in the future of lung surgery, yet there has been a steady progress, and more is done now than ever has been. The hand can be fairly safely inserted into the pleural cavity. The entire lung can, if need be, be separated all round. Inter-lobar empyema can be felt and localised, and foreign bodies have been extracted from right up against the mediastinum as well as from the lung.

In conclusion I would emphasise the following points. Diagnose as early as possible and never hesitate to needle for confirmation. Aspirate only where purely pneumococcal em-

pyema are found, or at any rate do not be in a hurry to operate where aspiration removes any cause of urgency. It is never safe to leave a full empyema for the shortest length of time, but always aspirate at once. If an operation is done then syringe out the cavity with some mild antiseptic at the time of operating. Insert a large tube of correct length and so fixed that it is not tied round the chest. This is uncomfortable and bad for breathing, and frequently, by the patient turning, the tube is pulled round and comes out. Re-insert clean tube immediately on taking out the dirty one, or the opening very quickly narrows, and re-insertion then causes pain, but if done at once it can be painless. Use antiseptic dressings covered by some protective layer, and change at once if there is any sign of penetration. When mentioning antiseptics I omitted to allude to the use of bismuth. The value of bismuth for sterilising sinuses and old empyemata we owe to Beck. 30 per cent. of bismuth in paroline is the solution used. This is especially useful in operating on the lung as in decortication or in the cavities resulting from open wounds. When attempting to remove the thickened layer in the latter cases one generally tears into loose connective tissue, probably altered lung. In commenting on these cases Sir Charters Symonds states: "The two risks in these operations are shock and the septic infection of the recently divided structures. When it is remembered that there is extensive division of muscle and bone, that the lung has been exposed and often torn, that the thick layer of parietal pleura has been removed over a wide area, some degree of infection is unavoidable. This, indeed, was a grave danger at one time, the temperature often running to 103° for several days and a rapid pulse. Since we have resorted to bismuth injections before operation this danger has practically disappeared."

I think that is worth remembering. It is used by rubbing over all the exposed surfaces at the operation.

Allow the patient up as soon as the temperature is down after the operation. Start breathing exercises without removal of dressings, and aim at the most cheerful environment with interest and amusement to the patient. In empyema as much as in any other illness, despondency is to be avoided.

By these methods I am sure chronic empyemata can be avoided and the whole illness considerably shortened.

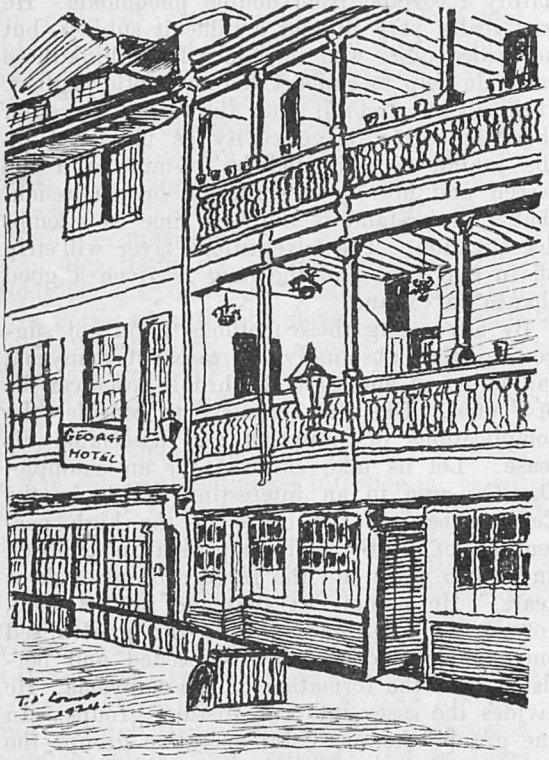
At Lambeth the antiseptic method is adopted and the results are very good. Dr. Stebbing very kindly allowed me to look through some recent reports, and the results are very satisfactory. Some cases are healed in three weeks and hardly any in more than four or five weeks. At the same time as the case I have mentioned to-day, another small boy was admitted with a twelve weeks' history of empyema following on a pneumonia. He had not been needled. He was operated on and the above suggestions carried out. He was quickly up and running about the ward, and absolutely healed in a fortnight. I had another man admitted with a very early empyema, in fact he was hardly recovered from double pneumonia. He was really very ill and a difficult subject, but he healed quite well in a month. I think these cases do help to support the antiseptic method. If in about a month after the initial operation there is still a large cavity as measured by the sound, or estimated by bismuth and the screen and not by auscultation or percussion, that I understand is the best time to attempt decortication. The adventitious layer will strip off in that time and the lung is given a good chance to expand.

By advocating these methods I am not suggesting that absolutely all cases of empyema can be cured and that all chronic cases can be prevented. One has seriously to consider the complications of empyema and associated disease. Let us take children for an example. Dr. Cameron in an interesting article in the *Lancet* discusses the cause of the high percentage of death from empyema in children under two years and the rapid drop after three years. He points out that the infants died, not of the empyema, but of the generalised pneumonic infection which preceded and persisted after the formation of the empyema. He divides the cases into two distinct groups. In one group—the successful operative group—the empyema presented itself as a residual abscess in the pleura after the determination of the acute pneumonic process. The temperature had definitely dropped and again become elevated. In the other group—the unsuccessful and high percentage of fatality group—the empyema is associated and is formed at one and the same time on the acute primary pneumonia. The temperatures are, as he describes it, superimposed one upon the other without any intermediate drop. These are the cases which die from the infantile pneumonia and not from the empyema.

The Discovery of the George Inn.

The Proceedings of the Southwark League for the Discovery of London.

THE three original members met at dinner and dissipated the funds at the treasurer's disposal. Dinner over, the new and hungry members were called in and the rambles of the future were discussed. Brook suggested "Bart.'s" and Smithfield. Clayson murmured "China Town." We voted them down on the ground that those things belong to the dull, prosaic side of the Thames. After a good deal of discussion we agreed to find



The George Inn, built 1676. T. O'CONNOR.

the George Inn. A few days later we gathered at the Cathedral and began the search. There are men who go straight to an inn and crooked to their houses, but not so with our members. We decided to go crooked to "The George" and then straight home afterwards. Taking the crooked path and deciding to take a last look at St. Olave's, Tooley Street, we walked underneath the main stairway of the Cathedral, and after several twists and turns found ourselves under London Bridge. Tooley Street, once St. Olave's Street, stood in front and led us to the Church. We wandered round the old building, and then made our way up the narrow stairway to the top of the tower. Lent had not dawned then, and our old friend, Clayson, the hero of a hundred good dinners, found himself wedged in the winding passage. Fortunately we were all ahead. Brook tied the stair rope round our aged brother, and then by some superhuman effort we dragged him into the fresh air. It is a wonderful tower. There are two big apartments which O'Connor thought might be used for living rooms, and Cheeseman, ever resourceful, thought they should be advertised. "And don't forget to mention the river views, the sea breeze, and the lift," said Clayson, now quite recovered from his experience as a ham sandwich. We eventually reached the churchyard—as dismal a thing as there is in Christendom. Gravestones are broken, moss grows upon the paving stones, ancient mariners have thrown their cast-off clothing over the wall, and every man who sees it has little rest for a fortnight. Realising the danger of the topic I began to explain that St. Olave's once had another churchyard, but the railway ploughed its way right through it many years ago, and not a tombstone remains. It was a resort of body snatchers a hundred years ago. These bad characters, I explained, were employed by medical students who ought to have known better. Fully aware of the presence of Brook, and with considerable histrionic fervour, and resting an elbow dramatically upon the churchyard wall, I said: "A horrible trade carried on at the instigation of villainous butchers." The medical student grew purple and said I was traducing a noble profession. I pointed out that my reference was to men of a hundred years ago, and his face toned down through many phases to the ordinary colouring of innocent youth.

Leaving St. Olave's we remembered the spot opposite the Church where the Abbots of Lewes lived for centuries. Then we passed to Joiner Street, and walked under the railway arch which no doubt spans the old churchyard, once the haunt of Resurrectionists. Brook and I walked together and vowed we'd never quar-

rel again. We would discuss, yes. We would agree to differ, yes. But quarrel, certainly not. Reaching St. Thomas's Street, named after the martyred Archbishop, we passed to the Chapter House. We stood for a moment gazing outside the splendid doorway of the Foster Hall. Once there was no door. If people were inconsiderate enough to meet with accidents after the main gates of St. Thomas's Hospital were closed at 4 p.m., they had to be driven in little cabs into this archway. In the Chapter House itself we ran through the history of St. Thomas's Hospital. I made no claim that the hospital was actually older than Bart.'s, but with all deference to my old friend I asserted the possibility. The present building, once the chapel of the institution, is but 200 years old. We toured the vaults in which the body of Thomas Guy rested for nearly 60 years, and then we climbed the tower stairway to see the old operating theatre which was used for 150 years. Our housing expert (he lives on them, dreams of them, dwells in them) thought the two big rooms might be useful to a homeless public. Cheeseman thought the bell should be given to some church in the diocese. Clayson thought the staircase inconveniently narrow, and Brook wondered how the patients managed to find their way to the theatre above.

At last we reached a ladder very old and insecure. The younger members went up one by one, and then only Clayson, the hero of a thousand dinners, remained. Persuasion was useless. He wanted to gaze at the views from the port hole, so the ladder remained intact. Once in the theatre above we recalled the incident of 100 years ago when the students of Guy's from over the road entered this operating room without proper permits. The men of Thomas's, resenting the intrusion, and oblivious of the presence of a poor patient, chased the visitors round the operating table and threw them one by one down the stairs into the arms of the gentlemen who served as policemen in 1834.

Descending once more, we admired the woodwork in the Chapter House itself and tried to imagine the patients of an earlier age gathering there in front of the fine altar piece which still remains.

Taking once more the crooked path we crossed St. Thomas's Street to Guy's, where local patriotism and a slight connection subdued my better judgment. "Gentlemen," I said, "this is London's principal hospital and here in the middle of the courtyard is Thomas Guy its founder." Every head was bared before that fine figure moulded by Scheemaker 200 years ago. Charles Brook, whose ancestors for centuries have been Bart.'s men, took up the challenge in a calm assured way. Turning to me he said, "I admire your loyalty, I quite agree that Guy's is a noble foundation, but to claim for your hospital the first place in London is arrogant and childish." The speech went on for many minutes and the vow to keep calm might never have been made. When it was possible to intervene I suggested that we should sit on the chapel step and argue it point by point. He began. "Your very history will not bear investigation. Guy was a miser." This introduction of the personal element drew from me the retort, "Have you ever heard why your founder went as a pilgrim to Rome, my dear fellow? He was not always a holy monk, you know." It was quite unnecessary to discuss the character of Guy henceforth. No more was said of the miser-bookseller. Justifying the present regime I stated that our doctors were the best in the world. "Have you, my dear Brook, anyone at Bart.'s who can equal our great surgeon, Sir Deadly Gripp, I mean Sir Alfred Fripp?" To which my friend responded, "Fripp, Fripp, never heard of him; who is he? Whoever he is our surgeons would make mincemeat of him." "Undoubtedly they would," I said, "but making mincemeat is not the work of surgeons." So the good-humoured debate went on until eventually the word "football" was mentioned. This was an ugly taunt in the light of a recent Thursday, so I suggested that the pavement was getting rather hard and signed to the others to move towards the porter's lodge.

Up the steps five men went, Clayson leading. Regarding the leader with suspicion Mr. Whitbread, the janitor, retarded the progress of our aged friend by the question: "The nature of your business, sir?" "Business, business," rasped our new member, "I have no business." With all the politeness in the world the guardian looked down upon the rotund figure of the leader and said, "You have made a big mistake. You want the Labour Exchange and this is Guy's Hospital." Stepping to the front I saved the situation by a full explanation, and we passed through the colonnade and into "The Park," from which we surveyed the town

of buildings which has grown up on the piece of land Thomas Guy bought from his fellow Governors of St. Thomas's in 1721. One great block of wards was added about 100 years ago by a City man, William Hunt, who wanted to be buried in the vaults of the hospital in order to be "as far as possible from that villain my brother." He had his way. We examined the War Memorial archway, through which we could see the Maze Pond district, so named from the fact that the Abbots of Battle, who lived there in the old days, had a pond and a maze in their wonderful gardens.

And let it be whispered that we caught a glimpse of "The Ship and Shovel"—a hostelry into which no Guy's man has ever entered.

It may have been the hour of five or it may have been the distant Ship—we don't know—but O'Connor said, "What about tea and what about "The George?"

Several hoarse voices said "hear, hear," so we passed through the colonnade and out into St. Thomas's Street. At the gateway of Guy's we turned to the left, then to the left again into the Borough High Street. My temptation was to lecture on the Counter Prison and St. Margaret's Church, two buildings which have long since disappeared, but my Philistine companions were so bent on tea—at "The George" —that I was almost forcibly prevented. My Irish independence insisted on a moment's pause, and outside No. 71 I took my stand and looked up in silence. After about a minute Brook said: "He's fast asleep." Unmoved I took out my notebook and made a little sketch of the fine old London sign, "The Hare and the Sun," which bears the date 1676. It was a reminder of the fact that in that year Southwark was rebuilt after a fire which destroyed practically everything but our Cathedral and St. Thomas's Hospital. It was a little undignified perhaps to be picked up by four stark materialists, but so it was, and in a few seconds I found myself in the yard of "The George Inn."

To be just to my companions we were a little late for tea, and Miss Murray, the kindly hostess, was standing at the door careworn and anxious. I introduced each member of the League, and without looking at the outward features of London's only coaching inn we passed into the coffee room. After tea, in order to get the true Pickwickian atmosphere, we placed Clayson on a chair, and handed him a clay pipe, the bowl of which found a fitting resting place on an important part of his generous anatomy. Terseness is his gift—staccato is his telegraphic address. He spoke as follows: "Gentlemen—'The George'—700 years ago they built it—called it 'Saint George' —pilgrims came here—so did play actors and other Christians—then they burnt it—1676—rebuilt it? assuredly—rebuilt it like the old one—no more pilgrims—no more play actors—a few good Christians—coachmen galore—did Dickens know it?—assuredly he did—sat in this coffee room—40 years ago appalling tragedy—3 sides of 'The George' torn down, but glory be to Gladstone the coffee room, 2 galleries, Miss Murray, the coachman's parlour and 2 old pistols remain to tell the tale."

Fearing that the story might go on for another hour we broke into violent applause, slapped the mahogany table with the palms of eight hands, woke up the parrot, scared Miss Murray, gave the old parliament clock a shock and lifted Pickwick bodily on to the floor.

The treasurer then suggested that the new members should be honoured by paying the bill. This was carried by a majority of 1, and we then went straight home.

T. P. S.

Correspondence.

Anorexia.

SIR,—Dr. Ryle, in his most interesting lecture, published in your last number, refers to cases of anorexia nervosa in which "psycho-analytic methods may have been employed with indifferent success, or even with aggravation of the trouble." He goes on to state that the origin of the disease "may be found *in an unhappy love-affair, in some fixed idea of* supposed sin, in some queer morbid craving for sympathy."

As I interpret these sentences, he had found psycho-analytic methods unsuccessful, but admits the origin of the symptom in a disorder of the mind.

I am not quite sure what Dr. Ryle means by the word "psycho-analytic." Possibly he has in mind cases which have been unsuccessfully handled by the disciple of some particular cult whose zeal outweighed his practical ability. He surely does not wish to *imply that the analytic methods used in the* differential diagnosis of anorexia should stop short of investigation of the mental state, or that when a

mental cause is discovered, no attempt should be made to unravel the tangled skein.

Anorexia nervosa is not a disease, but a symptom, a symptom which is commonly met with in mental asylums and known there more simply as "refusal to take food." Occasionally this refusal to eat may be the only *apparent* symptom of mental disorder, and then the physician who is content with an investigation which does not include analysis of the mental state, is obliged to use a Latin name for a condition which he recognises but does not understand. Such names, coined appropriately enough to mark the recognition of a fresh problem, often outlive their value, and I believe the time has come when "anorexia nervosa" should be erased from medical terminology.

I have no doubt that the persistent refusal to take food in these cases, leads in time to a kind of physiological anorexia, which Dr. Ryle has not mentioned. It has been recorded of many professional fasters and hunger-strikers that after the first few days, both the pangs of hunger and the desire for food have disappeared—an observation which is in full accord with Dr. Ryle's view that hunger and appetite have a common origin.—I am, Sir, yours faithfully,

C. P. SYMONDS.

74, Wimpole Street, W.1.
21st July, 1924.

Dear Sir,—Dr. Symonds has kindly permitted me to see the proofs of his letter written in criticism of some remarks of mine on the subject of Anorexia Nervosa, and by your courtesy I am permitted to reply to it in the same issue of the GAZETTE.

Anorexia nervosa, like other forms of anorexia, is of course a symptom and not a disease. I believe, however, that we should draw a distinction between the anorexia nervosa as described by Gull and "the refusal to eat" encountered in asylums, the essential difference being the possibility of complete recovery from the former condition provided that the patients are prevented from starving themselves. In other words the emotional derangement in these cases is often of a temporary nature and the patient, if saved from its physical consequences, may be restored to a healthy and happy way of life.

While, therefore, I should never urge in such cases that we should "stop short of the investigation of the mental state," I am honestly dubious about the advisability of trying to "unravel the tangled skein" by modern psycho-analytical methods. Enough information can usually be gleaned for working purposes from the patient's demeanour and from the relatives, and for the rest the diagnosis must be based on the exclusion of physical disease. The weakness and emaciation of the patient contra-indicate psycho-analytical enquiries in advanced cases just as much as they contra-indicate exhaustive physical investigations. What is chiefly needed is strong and confident handling and active persuasion to eat. In the words of Gull—"Food should be administered at intervals varying inversely with the exhaustion and the emaciation. The inclination of the patient must be in no way consulted." Employing these measures Gull found the prognosis to be for the most part favourable.

I have a particular case in mind in which psycho-analysis at the hands of a recognised authority not only did no good, but aggravated the trouble. Very possibly his zeal did—as Dr. Symonds suggests—outweigh his practical ability. In any case the cruder and more direct method in the hands of another physician (combined, I admit, with an unravelling of tangles superimposed by the previous treatment) restored the patient to a health and happiness which now, after a considerable lapse of time, still promise to endure.

It is perfectly clear from Gull's paper that apart from recognising and naming the condition he also fully appreciated its origin in mental disorder. Personally I believe that the Latin label which he attached to it can continue to serve a useful purpose, and that the principles of treatment which he laid down are applicable to-day. The usefulness of common-sense psychotherapy in conjunction with the feeding process no one of course would deny.

I would not for a moment have Dr. Symonds think that I intended to level an attack on the psycho-analytic method in general. I have good cause to be grateful for his assistance in the handling of difficult cases in which his own sensible methods of psycho-analysis have helped to complete the diagnosis and to remove the symptoms. I do, however, believe from my own limited experience that these cases of anorexia nervosa and certain allied conditions are commonly of a type and mentality unsuitable for psycho-analysis, and that our natural anxiety to be thorough in our probing of their wounds should be curbed. May not some mental disorders, in common with many types of physical malady, be judged capable of undergoing a natural cure provided that we can ensure for the patient adequate rest and reassurance and appropriate nourishment?—I am, Sir, yours faithfully, J. A. RYLE.

13, Wimpole Street, W.1.
July 23rd, 1924.

Sport.

United Hospitals Sailing Club.

ON the 4th June, 1924, a meeting of the United Hospitals Sailing Club was held at Anderton's Hotel, Fleet Street, for the purpose of drawing up the rules of the club, the Honorary Secretary, Mr. W. A. Lister, of London Hospital, being in the chair. After a great deal of discussion on some points, the following rules were eventually drawn up and passed:—

1. *Name.*—The name of the Club is "The United Hospitals Sailing Club."

2. *Objects.*—The objects of the Club are:—

(i.) To associate those students and residents, past and present, of the Medical Schools of London who are interested in boat sailing and cruising.

(ii.) To hold meetings during the winter months at which papers may be read and discussions held on subjects of interest.

(iii.) To encourage and facilitate cruising among members by means of prizes and by bringing into touch those proposing to spend their holidays on the water.

(iv.) To maintain sailing dinghies for use of members and accommodation for those using the dinghies.

3. *Qualification for Membership.*—Any member of the Clubs' Union of a Medical School at a London Hospital, or ex-member up to one year after qualification, and those holding resident appointments on the Staff of such hospitals are eligible for membership of the Club.

4. *Honorary Members.*—The Club in General Meeting may elect honorary members who shall have the rights of ordinary members, but may not use the Club's dinghies, may not take part in the competitions held in the Club and may not vote on matters of finance. They shall not pay a yearly subscription.

5. *Life Members.*

(i.) A member on leaving his Hospital may become a Life Member on payment of £1 1s.

(ii.) Life Members may not take part in the competitions held in the Club and shall use the Club's dinghies only if they are not engaged by ordinary members; otherwise they shall have the rights of ordinary members.

6. *Admission of Members.*

(i.) Candidates for membership shall give their names to their Hospital Secretary, together with their first year's subscription when they shall become members.

(ii.) The Hospital Secretary shall give a new member a copy of these rules and shall forthwith send the name and subscription to the Hon. Treasurer who shall add the name to the list of members.

7. *Retirement of Members.*—A member wishing to retire from the Club shall notify his Hospital Secretary on or before April 1st, otherwise he shall become liable for next year's subscription.

8. *Expulsion of Members.*

(i.) Every member on joining the Club undertakes to comply with these rules. Any infringement of these rules or any conduct unworthy of a gentleman or injurious to the interests of the Club shall render a member liable to expulsion by the Committee.

(ii.) Any member liable to expulsion shall be given an opportunity of defending his conduct before the Committee or of resigning his membership.

9. *Subscription.*

(i.) There shall be an annual subscription of such a sum as the Committee shall from time to time prescribe. At present the subscription is 5*s.* a year and is payable on or before April 1st to the Hospital Secretary who shall forward it to the Hon. Treasurer.

(ii.) Any member not having paid his subscription by April 1st shall be warned by his Hospital Secretary, and if it be not paid by May 1st his name shall be removed from the list of members, but may be restored again at the discretion of the Committee.

(iii.) A member shall not be entitled to attend the Club's meetings or use the dinghies or premises of the Club till he shall have paid his subscription for that year.

(iv.) A member joining on or after October 1st shall be exempt from paying his subscription for the following year.

10. *Annual General Meeting.*—The Annual General Meeting shall be held in November, the date to be fixed by the Committee. Due notice shall be given to members by the Hospital Secretaries 14 clear days before the meeting, together with a written notice of the business to be discussed.

11. *General Meetings.*

(i.) The Committee may call a General Meeting at any time, fourteen days' notice being given to members, together with a written notice of the business to be brought forward.

(ii.) The Hon. Secretary, on receipt of a request signed by ten members together with a written statement of the business to be brought forward, shall call a General Meeting to be held not later than 21 days from receipt of such request, and shall send to Hospital Secretaries a written notice of the business to be brought forward.

(iii.) No business shall be discussed at a General Meeting, except that published with the notice of the meeting unless it be ruled in order by the Chairman at such meeting.

(iv.) Questions shall be decided by a majority vote, the Chairman to have a casting vote.

(v.) In the absence of Flag Officers the Hon. Secretary shall take the chair at General Meetings.

12. *Officers.*—The Officers of the Club shall be a Commodore, a Vice-Commodore, and a Rear-Commodore, an Honorary Secretary, an Honorary Treasurer, an Honorary Boatswain, and the Hospital Secretaries. These shall form the Committee.

13. *Powers of the Committee.*—The Committee shall manage the business of the Club according to these rules, and shall apply the funds of the Club to the objects of the Club. They shall decide the results of the competitions held in the Club, and shall fix the dates of meetings, both ordinary and general and of regattas. They shall arrange the programme for the meetings during the winter and the allotment of dinghies during the summer.

14. *Election of Officers.*

(i.) The officers other than the Hospital Secretaries shall be elected at the Annual General Meeting and shall hold office for one year. They will be eligible for re-election at the next Annual General Meeting.

(ii.) Hospital Secretaries shall be elected by the members belonging to their own hospital.

15. *Meetings of the Committee.*

(i.) Committee Meetings may be called by a Flag Officer or two other members of the Committee.

(ii.) A quorum shall consist of representatives of three hospitals.

(iii.) Questions shall be decided by a majority vote, three hospitals to be represented in such majority vote.

16. *Notification of Fixtures.*—A list of fixtures for winter and summer seasons shall be sent to the Hospital Secretaries by September 21st and March 21st respectively, giving dates for meetings and regattas and the allocation of dinghies for the summer.

15. *Burgee.*—The club burgee shall be white with blue cross.

16. *Amendment of Rules.*—These rules may be altered, added to, or subtracted from as occasion demands at any general meeting.

RULES FOR MANAGEMENT OF DINGHIES.

1. The Club Premises and Dinghies shall be in charge of the Hon. Boatswain, assisted by the Club Boatman.

2. *Duties of Hon. Boatswain*

(i.) The Hon. Boatswain shall be responsible to the Committee that the Club's premises and dinghies are kept in a proper state of repair.

(ii.) He shall keep an account of the expenses incurred, and shall submit them to the Committee at least twice a year and at such other times as the Committee may require.

(iii.) He shall be responsible for insurance of the Club's property.

(iv.) He shall make such arrangements with the Club's Boatman as shall ensure that all damage or loss sustained by the Club's property be duly reported to the Committee, together with a report as to how such damage or loss was sustained.

3. *Allotment of Dinghies.*

(i.) The dinghies shall be allotted to the various hospitals in rotation, the period allowed depending on the number of members in each hospital. A list shall be given to each Hospital Secretary at the beginning of the season.

(ii.) A party proposing to use the dinghey allotted to their hospital shall give notice to that effect to their Hospital Secretary seven days before the allotted period.

(iii.) The Hospital Secretary shall notify the Club's Boatman that a party is using the dinghy stating the date and the name of the responsible member of the party.

(iv.) Should no party propose to use the dinghy, the Hospital Secretary shall at once inform the Hon. Secretary so that other hospitals may have the use of the boat.

(v.) Life Members may use the dinghies on application to the Hon. Secretary, provided no ordinary members wish to use the boat at that time.

4. *Damage or Loss caused by Parties using the Dinghies.*

(i.) A party using a dinghy shall arrange with the Hospital Secretary that one of the party with reasonable experience of sailing be responsible that the boat is returned in an undamaged condition, or that any damage or loss be reported to the Club's Boatman on the return of the party.

(ii.) Should any damage or loss in the opinion of the Committee be due to carelessness or negligence, the party responsible shall be liable to defray, at their personal expense, part or whole of the cost of making good such damage or loss, the amount to be decided by the Committee.

5. *Regattas.*—The Hon. Boatswain, assisted by the Committee, shall arrange the programme and handicaps at the Club's Regattas, and shall decide the results of the races and any question or appeal arising from such races.

The last of the above rules having been discussed and carried, Mr. E. H. Roche, Guy's Hospital, was unanimously elected Hon. Boatswain.

Next a Committee consisting of Mr. E. H. Roche, Guy's Hospital, Mr. G. P. Chandler, St. Thomas's Hospital, and Mr. Thrower, St. Bartholomew's Hospital, was elected to select the dinghy that the Commodore has so kindly promised to present to the Club.

It was announced that the 5s. annual subscription would probably not be enough to cover the cost of maintenance of the dinghy at Fambridge, and, after some discussion, it was decided that the deficit, if any, should be divided up among all members.*

The meeting closed with a very hearty vote of thanks to the Commodore for his generous gift that will be of such material assistance to the activities of the Club.

Cricket.

Inter-Hospital Cup Final.

Guy's v. St. Thomas's.

THE all-important game of the season was played on St. Thomas' ground at Chiswick, on the 24th and 25th July, since they were fortunate enough to win the toss for choice of grounds. Guy's skipper won the toss and was faced with the problem of whether to bat or not on a wicket that had been rain-sodden for two or three days and was now rapidly drying. He elected to take first knock and Guy's went in to bat. Our opening batsmen played very carefully and steadily, and only two runs were scored in a quarter-of-an-hour. At that total Pye-Smith was bowled by a "yorker," a little faster than two others he had received previously. At 10, Ensor was cleverly taken behind the wicket and the score had only mounted by 8 runs when we lost a third wicket. Three for 18!! Things looked very bad indeed, and obviously the opening bats were suffering from "Cup-itis." Another wicket fell at 34, and then Shaw came in to partner Catchpole, who has been playing extraordinarily well. These two by dint of excellent cricket and severe punishment of loose balls carried the score to 135, when Catchpole was dismissed by the last ball before lunch. The team and its supporters began to breath a little more freely now, thanks to this brilliant partnership of 101 runs.

After lunch Shaw was soon dismissed, Cooper, behind the wickets, again being responsible. Curtis and Van Schalkwijk however got together in a good stand and put on 34 runs. The tail refused to wag and Guy's were all out for 174. It did not seem a large total against such a team as St. Thomas', but evidently they found our bowling just as difficult as we found their's. Their opening batsmen started very shakily and Weaver-Adams gave a very difficult chance off Van Schalkwijk's third ball. It was really too difficult to be accepted, but compensation was at hand, for off the fifth ball he was caught behind the wicket without having scored a run. At

*Since this meeting, the Clubs' Unions of London, St. Thomas's and St. Bartholomew's Hospitals, have made grants to their Sailing Clubs, so that there is no longer any question of making any extra charge for upkeep of dinghies.

30, Gordon was bowled by a beautiful ball from Durr. Two for 30!! The next man in was out first ball from the same bowler, having been taken very smartly behind the wicket. Then Jerram arrived and it was obvious that he meant to stay at all costs, while Berridge made the runs. He played a very patient innings, punishing the very occasional loose one from our bowlers. Berridge hit out, and after giving one very hard chance, was well caught by Trick at backward point. Then the wickets began to fall, and after Jerram had been bowled by a "fizzer" from Schalkwijk, a real collapse set in and Thomas' were out for 147. Twenty minutes were left in which to bat that day and our opening pair gallantly played out time in the failing light for 13 runs.

Next morning, full of hope, the game was continued, but disaster overtook us. Whether it was the wicket, or the superb bowling of Doggart, or nervousness that accounted for our collapse it is difficult to say, but we were all out for 78 runs, Pye-Smith alone showed any ability to cope with the bowling and made 33 very valuable runs. St. Thomas' were left with 105 runs to make for a draw and 106 for a win. It seemed impossible for Guy's to win but the team went out full of determination to make a fight of it. And fight they did! Van Schalkwijk bowled like a demon, and Durr used all his wiliness and in spite of all the excitement both kept an immaculate length. They were well supported by all the fielders, who strained every nerve to field the ball and prevent a run. Not one single run was given away during the whole of the innings. St. Thomas' felt the strain just as acutely, but although their first few batsmen endeavoured to play themselves in, our bowlers would not be denied, and at lunch time three wickets were down for 21 runs.

After lunch Jerram was quickly taken at square-leg off Durr, and now that he was out we felt that we had even a greater chance of pulling off the apparent impossibility. Three more wickets fell and St. Thomas' were 36 for seven. Guy's hopes ran high, but the next two batsmen carried the score to 53 before another wicket fell. Then Childs came in to play his plucky knock, and in partnership with Trim caused the hopes of Guy's to sink lower and lower. The score crept up run by run to 94, when in attempting to slosh a ball over point's head, Childs was brilliantly held by Van Schalkwijk, who was only standing about 6 yards away from the batsman. He jumped very high to get the ball and only caught it after it had bounced into the air off his palm. Nine for 94, and the last man came in looking and no doubt feeling dreadfully nervous, for only 12 more runs were needed. Singles were snicked to leg, runs were made by the long pushing shot to extra cover and the score was 98. Then Cook faced Durr and off the third ball had the temerity to hit a four. Van Schalkwijk bowled a "maiden," and again the batsman faced Durr. The suspense now was acute, and everybody, batsmen, fieldsmen, bowlers and spectators sensed that breathless hush. The first four balls were too good a length to be hit and were well on the off. Then came that fifth ball, full of guile, perfectly pitched on the leg stump. It swung away to the off, the batsman played across it, click went the off-stump and amidst a mighty roar, Guy's had won the Cup—after 12 long years of waiting.

Nothing too much can be said of the wonderful bowling of Van Schalkwijk and Durr in this second innings. They were handicapped by the lowness of the total against us and that in itself is enough to cause any bowler to lose heart, but in spite of it all they bowled as they have never bowled before. The fielding was magnificent, the wicket keeping brilliant and the whole match was really a fitting climax to the keen and strenuous efforts that have been made by all members to improve in every department of the game.

SCORES.

Guy's (1st innings.)

E. J. Pye-Smith, b Berridge	2
A. G. Ensor, c Cooper, b Doggart	4
L. Catchpole, c Webb-Peploe, b Childs	56
C. Kendle, c Cooper, b Childs	3
L. S. Williams, c Berridge, b Childs	11
G. D. Shaw, c Cooper, b Berridge	56
J. Durr, c Cooper, b Childs	2
A. H. Curtis, c Webb-Peploe, b Childs	22
J. G. Van Schalkwijk, b Childs	14
G. Fellowes-Smith, c Jerram, b Childs	0
S. R. Trick, not out	0
Extras	4
Total	174

Bowling.—R. Childs, 7 for 49.

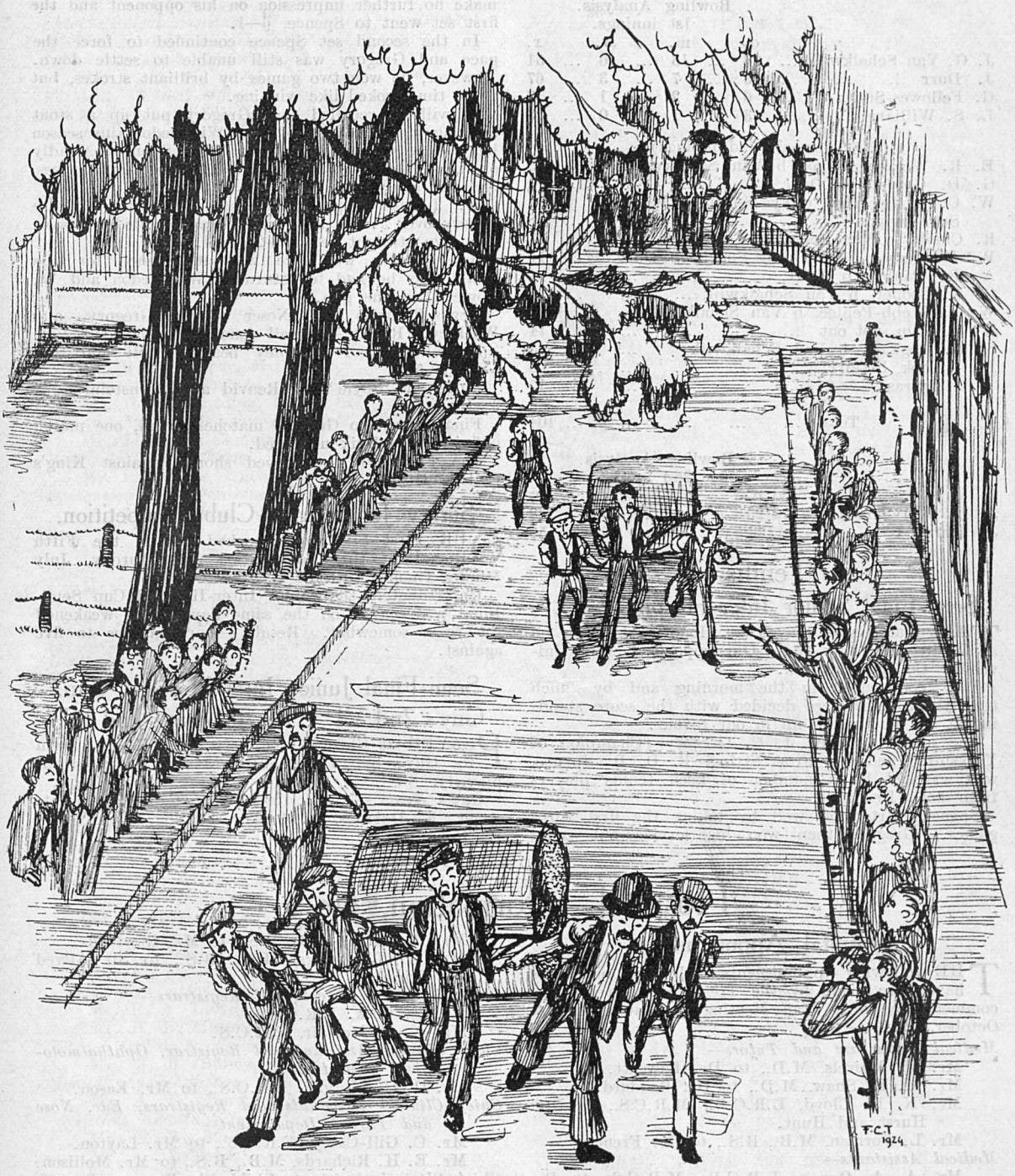
Guy's (2nd innings).

E. J. Pye-Smith, b Doggart	35
A. G. Ensor, l.b.w., b Doggart	9
L. Catchpole, b Doggart	0
C. Kendle, b Childs	0
L. S. Williams, c Cooper, b Berridge	7
G. D. Shaw, b Doggart	3
J. Durr, c Cooper, b Berridge	2
A. H. Curtis, b Doggart	1
J. G. Van Schalkwijk, b Berridge	3
G. Fellowes-Smith, not out	10
S. R. Trick, b Doggart	1
Extras	7
Total	78

Bowling.—Doggart, 6 for 21; Berridge, 3 for 20.

St. Thomas' (1st innings).

E. R. Weaver-Adams, c Pye-Smith, b Van Schalkwijk	0
G. D. Gordon, b Durr	17
W. C. M. Berridge, c Trick, b Van Schalkwijk	33
R. Childs, c Pye-Smith, b Durr	0
W. M. Jerram, b Van Schalkwijk	43
A. R. Canby, c Trick, b Van Schalkwijk	1
G. K. Cooper, c Pye-Smith, b Durr	4
W. H. Webb-Peploe, c Ensor, b Fellowes-Smith	14
E. A. Trim, b Van Schalkwijk	7
S. H. Doggart, b Van Schalkwijk	12
L. C. Cook, not out	2
Extras	14
Total	147



BRIGHTER GUY'S: A SUGGESTION.

Chariot Races in the Park.

Bowling Analysis.
1st innings.

	o.	m.	w.	r.
J. G. Van Schalkwijk ...	28	13	6	51
J. Durr	29	7	3	67
G. Fellowes-Smith ...	6	2	1	7
L. S. Williams	3	1	0	8

St. Thomas' (2nd innings).

E. R. Weaver-Adams, b Van Schalkwijk ...	0
G. D. Gordon, b Durr	2
W. C. M. Berridge, c Pye-Smith, b Van Schalkwijk	8
R. Childs, c Van Schalkwijk, b Durr	33
W. M. Jerram, c Fellowes-Smith, b Durr ...	11
A. R. Canby, b Durr	4
G. K. Cooper, b Van Schalkwijk	6
W. H. Webb-Peploe, b Van Schalkwijk	0
E. A. Trim, not out	14
S. H. Doggart, b Van Schalkwijk	5
L. C. Cook, b Durr	6
Extras	15
Total	104

Bowling Analysis.
2nd innings.

	o.	m.	w.	r.
J. G. Van Schalkwijk...	23	8	5	38
J. Durr	22·5	6	5	50

Tennis.

Semi-Final Senior Inter-Hospital Cup.

THIS match was played at Honor Oak Park on Wednesday, July 2nd. Our opponents were University College Hospital.

Play commenced in the morning and by lunch time the Singles were decided with the score standing at six matches to nil in our favour.

The match between J. C. Gregory (Champion of Yorkshire) and our First String, P. D. B. Spence, was watched by a number of keen tennis players from both Hospitals.

Spence started off well by taking the first three games. Gregory then won his service but could make no further impression on his opponent and the first set went to Spence, 6—1.

In the second set Spence continued to force the pace and Gregory was still unable to settle down. However, he won two games by brilliant strokes, but at no time looked like winning.

It will be recalled that Gregory put up a stout fight against Manuel Alonzo at Wimbledon this season but he was unable to cope with Spence's deadly overhead shots and high bounding top spin services, and the set went to Spence at 6—2.

H. Lewis-Philipps (Captain) gained a surprise victory over J. Weakley—who is a Wimbledon player—in two straight sets, 6—2, 6—4.

After lunch we were without Spence for the Doubles as he had to return to Wimbledon and W. Boyle filled the gap.

Lewis-Philipps and Neser played Gregory and Weakley. Result:—Set all (one set unplayed).

Badenhorst and Sharpley beat Henzell and Sim 6—4, 7—5.

Lurie and Boyle beat Renvid and Bernstein, 6—2, 6—4.

Final Result to Guy's, 8 matches to nil, one match unfinished, and six unplayed.

The Final will be played shortly against King's College Hospital.

Surrey Junior Inter-Club Competition.

OUR First Six were knocked out in the Fifth Round of this Competition on Saturday, July 5th by Thames Ditton.

Unfortunately the Junior Inter-Hospital Cup Semi-Final was played on the same day, which weakened the team somewhat. Result:—four matches to five against.

Semi-Final Junior Inter-Hospital Cup. Guy's 2nd VI. v. St. Thomas's 2nd VI.

PLAYED at Chiswick, on July 5th. Result a win for Guy's by 10 matches to 3 (two matches unplayed).

Guy's Team:—A. H. Musgrove (Capt.), A. Ratnager, E. Durrons, L. Parker Tupling, W. Russell, H. Cohen.

Hospital Information, etc.

Hospital Appointments.

THE following appointments and re-appointments have been made by the Treasurer upon the recommendation of a Staff Meeting (to date from 1st October, 1924):—

Medical Registrars and Tutors—
Mr. M. Maizels, M.D., to Dr. Fawcett.
Mr. M. E. Shaw, M.D., to Dr. Beddard.
Mr. N. L. Lloyd, L.R.C.P., M.R.C.S., to Drs. Hurst and Hunt.
Mr. L. Forman, M.B., B.S., to Dr. French.

Medical Assistants—
Mr. A. A. Osman, L.R.C.P., M.R.C.S., to Dr. Hurst.
Mr. W. W. Payne, M.B., B.S., to Dr. French.

Surgical Registrars, Tutors and Assistants—
Mr. J. Gaymer Jones, F.R.C.S., to Mr. Steward.
Mr. W. D. Doherty, F.R.C.S., to Mr. Fagge.
Mr. B. Laver, M.B., B.S., to Mr. Rowlands.
Mr. A. T. Rogers, M.B., B.S., to Sir Alfred Fripp.

Obstetric and Gynæcological Registrars—
Mr. F. Cook, F.R.C.S.
Mr. A. J. McNair, F.R.C.S.

Chief Clinical Assistant and Registrar, Ophthalmological Department—
Mr. O. G. Morgan, F.R.C.S., to Mr. Eason.

Chief Clinical Assistants and Registrars, Ear, Nose and Throat Department—
Mr. C. Gill-Carey, F.R.C.S., to Mr. Layton.
Mr. E. H. Richards, M.B., B.S., to Mr. Mollison.

Chief Clinical Assistant, Children's Diseases Department—
Mr. A. A. Osman, L.R.C.P., M.R.C.S.

Chief Clinical Assistant, Actino-Therapeutic and Electrical Department—
Mr. J. F. Carter-Braine, M.B., B.S., F.R.C.S.

Chief Clinical Assistant, Neurological Department—
Mr. N. L. Lloyd, L.R.C.P., M.R.C.S.
Junior Assistant Bacteriologist—
Mr. A. T. W. Powell, M.B., B.S.
Resident Medical Officer, Bright Ward—
Mr. D. J. P. O'Meara, L.R.C.P., M.R.C.S.
Assistant Anæsthetists to the Hospital—
Mr. O. Halstead, L.S.A.
Mr. W. G. R. Hore, L.R.C.P., M.R.C.S.
Mr. E. H. Richards, M.B., B.S.
Mr. K. M. Woodruff, M.B., B.S.
Anæsthetist to Bright Ward—
Mr. E. A. Scott, L.R.C.P., M.R.C.S.

Demonstrators of Anatomy, whole-time—
Mr. W. H. Ogilvie, F.R.C.S.
Mr. Grant Massie, F.R.C.S.
Demonstrator of Pathology, whole-time—
Mr. R. D. Passey, M.D.
Demonstrator of Pathology, part-time—
Mr. H. E. Harding, B.A.
Demonstrator of Physiology, whole-time—
Mr. J. M. H. Campbell, M.D.
Demonstrator of Physiology, part-time—
Mr. R. Brooke, L.R.C.P., M.R.C.S.
Demonstrator of Pharmacology, part-time—
Mr. M. E. Shaw, M.D.
Anderson Demonstrator of Clinical Chemistry—
Mr. M. Maizels, M.D.
Griffiths Demonstrator of Pathology—
Mr. J. F. Carter-Braine, M.B., B.S., F.R.C.S.
Demonstrators of Chemistry, whole-time—
Mr. H. C. Bell, M.A.
Mr. H. Burgess, M.Sc., Ph.D.
Demonstrator of Chemistry, part-time—
Mr. J. Wiseman, B.Sc.
Demonstrator of Physics, whole-time—
Mr. T. W. Adams.
Demonstrator of Biology, whole-time—
Mr. L. C. Fox, M.A.

Dental Radiologist—
Mr. H. M. Worth, L.D.S.
Demonstrators of Prosthetic Dentistry—
Mr. K. G. Sharvill, L.D.S.
Mr. F. A. Walker, L.D.S.
Demonstrators of Operative Dentistry—
Morning attendance—
Mr. A. Hirschberg, L.D.S.
Mr. S. P. Meacock, L.D.S.
Mr. K. Hooper, L.D.S.
Mr. K. F. McAlpin, L.D.S.
Afternoon attendance—
Mr. E. A. Lloyd, L.D.S.
Mr. H. L. Messenger, L.D.S.
Dental Officer to Salomons Centre—
Mr. E. R. Bailey, L.D.S.
Dental Anæsthetist to Salomons Centre—
Mr. A. D. Marston, L.D.S.
Assistant Anæsthetists to the Dental School—
Mr. E. R. Bailey, L.D.S.
Mr. A. H. Todd, F.R.C.S.
Mr. H. P. Baylis, L.D.S.
Mr. A. T. Rogers, M.B., B.S.
Registrar to the Dental Department for Children—
Mr. J. Stuart Smith, L.D.S.
Assistant Dental Bacteriologist—
Mr. A. Bulleid, L.D.S.

Pass List.

L.D.S.

Final Examination.
June, 1924.
Part II.

W. J. Barnard.	D. F. King.
E. J. B. Curtis.	N. Parkinson.
R. S. de Bruyn.	K. F. Pedley.
P. J. du Toit.	G. G. T. Tregarthen.
E. F. Farmer.	H. P. R. Williams.
C. H. Fox.	G. G. Exner.
W. H. Foy.	E. E. Gibson.
F. H. Goddard.	J. C. Rowbotham.

The above are now qualified.
Part I.

W. P. Beresford.	H. B. Kidner.
H. B. M. Cahill.	H. C. Lawrence.
E. Crocker.	G. B. Longhurst.
G. M. Glennie.	F. T. Lowein.
D. A. James.	L. G. Pickett.
N. J. Boulton.	F. St. J. Powley.
T. O'R. Clancy.	E. B. Rees.
R. L. Denny.	S. Thomson.
G. W. Dibble.	F. H. B. Tofts.
G. W. Gathergood.	W. F. C. Tucker.
N. Goldthorpe.	J. F. Wege.

L.D.S.

Preliminary Science.
Chemistry.

V. G. Boyle.	N. E. James.

Physics.

E. C. Humphreys.	R. W. Waldie.
L. E. James.	H. E. S. Collingwood.

University of London.

M.D.

July, 1924.
Branch I. (*Medicine*).
A. H. Douthwaite, M.S.

M.S.

July, 1924.
Branch I. (*Surgery*).
Grant Massie.

2nd Examination (M.B. B.S.) for Medical Degrees.
Part II.
July, 1924.

H. W. Applin.	A. B. Kettle.
M. T. Aung.	S. C. H. Lane.
T. G. Benjamin.	F. J. Mayne.
K. C. Billingham.	R. J. Milbank.
F. W. Bradley.	C. B. Picken.
A. Carr.	A. H. Russell.
J. P. Evans.	H. W. A. Post.
D. F. Kanaar.	W. R. C. Spicer.

Conjoint Board.

1st Examination.
July, 1924.
Chemistry, Physics and Elementary Biology.
Physics.

F. S. C. Pritchard.	E. A. R. Berkeley.

Elementary Biology.

K. S. Fitch.	E. Lethem.
G. K. Lacey.	G. E. Payne.

2nd Examination.
July, 1924.
Part I.
Anatomy and Physiology.

*R. D. Broadway.	H. W. A. Post.
E. C. Woodhead.	*R. G. de Kock.
T. G. Scott.	*M. H. Rashwar.
G. W. Rake.	S. L. A. Clark.
*R. J. Millbank.	C. R. E. Freezer.
*J. A. Vernon.	*G. N. Lewin.
I. C. Lansdale.	W. E. Herbert.
J. C. Evans.	R. H. Hancock.
†F. S. Warner.	*H. D. Kendrick.
W. Rosenberg.	J. D. Cambrook.
M. T. Brockman.	*L. Brown.
A. H. Russell.	*W. H. Myburgh.
*S. T. Williamson.	

*Anatomy only. †Physiology only.

Part II.
Pharmacology and Materia Medica.

E. C. Woodhead.	J. C. T. Tregarthen.
G. W. Rake.	D. C. Drake.
R. J. Millbank.	H. W. Lewis-Philipps.
M. M. El Mishad.	L. E. Owen.
R. H. El Sawy.	E. Bowen Jones.
D. H. Couch.	

Pre-Medical Examination.
Chemistry, Physics and Biology.

D. K. Gaitskell.	C. A. W. Archer.
F. Kennedy.	R. Symmons.
C. Leckie.	*E. L. Monkhouse.
K. S. Morris.	*T. B. Pitts.

*Chemistry only.

Specialities.

"Blood Pressure Simplified."

MESSRS. SHORT & MASON, LTD., ANEROID WORKS, WALTHAMSTOW, LONDON, E. 17.

WE have before us "Blood Pressure Simplified," which seems to fulfil the demand for a handy reference book on this matter.

It clearly and forcibly explains the subject from every point of view, and in addition has a bibliography of recognised authorities. It should prove a boon to students and busy medical men.

It is published by Messrs. Short & Mason, of Aneroid Works, Walthamstow, E.17, the makers of the "Tycos" Sphygmamometer.

Cyder.

IN these days of dubious beers, synthetic beverages, and expensive wines, it is refreshing in more senses than one to turn to that truly English beverage—CYDER.

As the dictionary has it, Cyder is "the fermented juice of the apple." What can be better than the quintessence of that fruit, of which it has been truly said that taken daily it keeps the Doctor away. Seeing the number of apples that are used in making a gallon of good Cyder, if the Cyder consumption increases as we are credibly informed it has during the past few years, many of our profession will be like Othello.

Joking apart, it is an undoubted fact that Cyder is becoming—and deservedly so—more popular than it has ever been. This is largely due to the efforts of some of the old English firms, who have been making Cyder for generations. Probably the most famous of these is Henley's, whose London Stores are just outside our gates. Established 133 years ago, this fine old firm has handed down the accumulated skill and experience, and to-day their Cyder is made by their lineal descendants with that scrupulous regard for "Pride of product" initiated by the Founder.

Alas for human nature! there are Cyders and Cyders, so that one must discriminate in Cyder as in other things. Messrs. Henley guarantee their product "the pure fermented juice of the apple, and nothing else." They back their assertion by the fact that they have been awarded five gold and other medals, and also for seventeen years past their Cyder has been tested and awarded annually the Certificate of the Institute of Hygiene, and as a crowning achievement has been awarded the Gold Seal Certificate of the Institute.

We do not think we need dictate to our readers the value of a pure beverage, nor need we stress the well known beneficial properties of the juice of the apple, but we might remind them of the fine palliative effects of the natural malic acid in cases of rheumatism and uric acid troubles. Briefly, the longer Cyder ferments the more malic acid is developed and the "dryer" the Cyder becomes, so that a good dry Cyder is a fine palliative, and in many cases a cure for these troubles. Moreover, it is economical and pleasant to take. Messrs. Henley's put up a fine old matured Cyder specially for sufferers; under the brand of the Gold Seal Blend. We cannot do better than quote the words of Messrs. Henley "You may safely recommend Henley's Cyder." They will be pleased to send full particulars to any member of the profession, and quote special terms for own use.

Change of Address.

Dr. Arthur Miller, Flat 3, 77, High St., Marylebone, W.1.

S. T. Hine, Felix Chambers, Hamilton Road, Felixstowe.

Maurice Pearson, M.R.C.S., L.R.C.P., L.D.S. c/o Medical Director's Office, Southern Rhodesian Medical Service, Salisbury, S. Rhodesia.

Miss A. G. Mitchell, Mascagni, 21, Park Farm Road, Kingston-on-Thames.

Eric S. Walmsley, L.D.S., 162, Friar St., Reading.

Miss M. S. Robertson, Withington Rectory, Andoversford R.S.O., Glos.

Dr. H. Nunan Collier, 9, King St., St. James, S.W.1. Tel. Regent 1623.

Births.

GRACE.—On July 20th, 1924, at Richmond Lodge, Chester, to Marjorie, wife of W. H. Grace, M.D., M.R.C.P. (Lond.), a son.

MESSENGER.—On July 26th, 1924, at Hampstead, the wife of H. L. Messenger, M.C., a daughter.

Marriage.

HOGBIN—WEALE.—On July 19th, 1924, at St. Catherine's Church, Gloucester, by the Rev. H. S. Hensman, Frank Roy Hogbin, L.D.S.Eng., of 27, Oakfield Road, Clifton, to Catherine, widow of Maurice Hubert Weale.

Death.

CARR.—On July 18th, 1924, at 9, Carlton Terrace, Blackpool, Thomas Carr, M.D. (Durh.), M.R.C.S. (Eng.), D.P.H. (Cantab.), in his 66th year.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *August 16th, 1924.* *Number 942*

PASSIM

WHETHER it be a matter of several weeks or the more conciliatory affair of a week-end, holiday-making is rife. "Of making many books there is no end; and much study is a weariness of the flesh." At this time of the year we, the remnant, feel somewhat out of focus with the daily intercourse of life, and in our extremity conjure up visions, perforce, of an escape from Babylon to tracts of land not yet defaced by civic warts. We recall how in like manner we used to sit tantalised by hints of a larger world without that obtruded themselves through the schoolroom window. We itched to be away. And then the scramble as the dismissive signal—climax, oh, unbelievably delayed—was given at long last! Our books in those days were all "ragged veterans," hardy old warriors who bravely had survived onslaughts of ink and ravage wrought by analytical, despoiling fingers. Into the lockers we flung them, and then off to fields and pastures ever new in their opportunities of valorous things to be striven for in games, or of rare and, let it be whispered, occasionally illicit trophies from nest and stream. The less strenuous of us went in search of an El Dorado somewhere along the river bank, a pool deep, with sandy floor and smoothly weathered rocks from which to plunge. But howsomever, wheresomever, we sorted ourselves out into these divergent groups, the impulse was the same: to be free from this unnatural bondage, to break away from the restriction of four walls, "to go our own way," and revert to the primitive and elemental, for a while—that was the call which made us wriggle at our desks.

The old (or young) feelings recur. This time we yearn to be quit of the town. Our release comes and, bestirred, we begin the selective business of packing, concurrent with a fuss over innumerable, intricate arrangements of deputising, billeting, transportation and leave-takings, all of which engages our every faculty until the last breathless moment at the station. We take our seat; the doors slam to; a whistle sounds; the engine, roused from lethargy, gives a weak, tentative jerk, and then, mustering all its power into one convulsive tug, majestically emerges from its lair. Phew! we've escaped. And very soon we find ourselves bowling along over the hills and far away.

All of us harbour delusions of some kind, and one of them is the countryside. We have

arrived there, presumably, and in the evening have seen the sun battling its way down behind the western hills and have waited for the death-blow which will splash the sky in blood; or in the morning have watched the scudding clouds with their retinue of shadows passing quickly over hill and dale, pursuant like the wise men of the east, who kept the Star of Bethlehem forever in their ken; or gazed upon the sea, now mirror-like enough for Narcissus to be enamoured of his own image, now mountainous with waves, as though—

> "It seemed by God's decree
> The Alps had all gone marching on the sea."

Thus much do we begin to discover: that the elemental part of our world is as capable of emotions as ourselves. With the poets, we etherealise, thinking that if our comments be sufficiently rhapsodical we have fulfilled some exacting address of courtesy due morally as a matter of course to every piece of land, sky, or seascape. We forget that the first critical remarks passed on the universe in all its fresh splendour were couched in no more extravagant terms than, "It was very good." No. An exclamation or two at appropriate moments, followed by a morose passivity into which we are apt to relapse at holiday-time is not what we're after at all. Complete inaction, mental or muscular, spells boredom. And that is what this spasmodic awakening to beauty amounts to. Moreover, it is too automatic to be trustworthy.

One must be wary in laying down the law on this subject of holiday. Every man for himself. But if we are fit and have the spirit of adventure, be it never so mild, how better to escape from civilisation than by walking away,—literally? On the march, nature is unfolded for us, not merely in the glamour of a sunset, in the eeriness of mists, in the storming of winds and seas, in the silence of a moonlit scene, but rather as a vast playground upon which Man is continually involved in a grim game of out-matching the forces elemental. A point, you perspiringly acknowledge, goes to this mountain up whose declivity the road is now leading you, and another one against that train manœuvring its laborious way round the foot of yonder hill. But Man scores with that neatly sequestered village taking refuge in the valley, and again with that lively mountain stream which, in confluence with its neighbours, will soon be bearing smoking, cargo-laden ships out to sea.

And we, the self-appointed adjudicators, will take note as to how the game proceeds, and indeed will be drawn into conflict, willy-nilly, ourselves. As the road climbs and our pack hangs heavy on the shoulder, and the evening closing in fast, we recognise how real Christian's burden must have been, something more, to be sure, than a mere careless fictional device of Bunyan, himself a tramp, who would take pity on us in our faltering steps to the inn. No matter. We have renounced our former mode of living as we set out to do. And yet, however much we resolve to make a return to nature, eventually the city, with its many comfortable contrivances, will claim us for its own again. There is a story in one of Neil Munro's books of a certain placid factor in whom the wild, marauding spirit of his Hieland forbears was suddenly roused again, so that he betook himself to the hills, apart from his wife and comforts. But the spell was broken at last, and he was called to account.

> "Between ourselves, then," replied Macaulay, "it was my slippers. That and an indifferent dish of tea. If my wife had not got me into my slippers, neither you nor I would be sitting so jocular here. The freedom of the mountains is not to be compared with a pair of dry hose and content beside the fire."
>
> At that the Captain grimaced. "Tut!" said he. "I wish I had not asked you. I expected a miracle, and you give me only an epitome of civilisation."

▭

ELSEWHERE in this issue there appears a letter sent to us by the Appeal Committee, explaining how all Guy's men can readily cooperate in getting rid of the financial burden at present laid upon the Hospital. Collecting books and sheets are now being prepared, and applications for them should be made to Dr. Eric Wornum, Secretary to the Treasurer, Guy's Hospital, London, S.E.1.

▭

WE are asked to state that Clubs' Union Membership Cards for 1924—25 are now to be obtained from the Medical School Office. They are at last free of entertainment tax.

▭

DURING the month of August, when the Wills Library is closed, copies of the GAZETTE will be distributed from the GAZETTE Office within the Counting House.

Guy's Hospital Bicentenary Appeal.

Bicentenary of the Hospital, and Centenary of the Medical School, 1925.

DEAR MR. EDITOR,

Many old Guy's men are aware that an appeal for funds has already been launched by our Treasurer with the hearty approval and good wishes of H.R.H. The Prince of Wales, our President, and with the most inspiring backing by our influential Press.

The object is to free our Alma Mater from her debts, and so enable her to look forward to the uncertain future with more confidence. We can imagine nothing more fitting to celebrate the Bicentenary year of Thomas Guy's foundation, and the Centenary of the Medical School, than to remove a handicap which, but for the War, would never have been laid upon it.

The Treasurer requires £160,000 for the Hospital, and £40,000 for the School. In obtaining this sum the Treasurer hopes to have the active support of all Guy's men, and through them of their friends and their patients.

In 1896, when, as some of us can remember, the only other public appeal ever made for Guy's was launched, Sir Samuel Wilks presented to the Treasurer the sum of £26,510 collected and subscribed by the Staff and by the past and present Students of the Medical School. Cannot we of this generation beat it? We believe we can. Already a very considerable sum has been promised, and we feel sure that the project has only to become widely known to determine its success, and so provide a tribute worthy of our love for Guy's.

In the meantime plans are being prepared so that a vigorous campaign can be begun in October, for the last three months of the year, to be completed we hope by January 6th next, the date on which in 1725 Guy's was opened. We shall have ready shortly collecting books, for which we look for many applicants and also collecting sheets, like those posted in Clubs for Christmas subscriptions, and such like. It is suggested that the collecting sheets might be posted in consulting rooms or in other suitable places, by old Guy's men who would be willing to receive subscriptions. Collecting books will be sent to all Guy's men who apply to Dr. Eric Wornum, Secretary to the Treasurer, Guy's Hospital, London, S.E.1. Dr. Wornum is acting as our chief agent, and is one of ourselves, and he will be grateful to receive as soon as possible the names of any who are willing to help us in our need, e.g., by organising Concerts, Dances and other attractions, on our behalf. He will supply details in figures to anyone who, in any of the divers ways that occur is prepared to give a helping hand to his old Hospital and School.

Of course the Treasurer will be grateful for large sums and equally so for small, either in the form of Donations or Subscriptions, and if we can set our collecting machinery in motion, and keep it revolving throughout the world of Guy's then our 3,000 Guy's "Medicals and Dentals" will turn out a sum of which we shall be proud and so afford a proof that the present generation of Guy's men are as willing to put their backs into the good work as were their forbears who made our proud history in the past.

We are,

Yours sincerely,

(Signed) JOHN FAWCETT.
ALFRED D. FRIPP.
H. L. EASON.

Guy's Students and the Appeal.

INQUIRIES have been received from present Students with reference to their activity over this Appeal. The enthusiastic support of all present Guy's men and students is most earnestly asked for. To this end a general meeting will be held probably towards the end of September, and this will be addressed by the Treasurer. Owing to the fact so many are away at present it is thought unwise to hold such a meeting earlier. Full details of the Appeal will be given and the causes for the Appeal specially mentioned.

Collecting Books will be given out to each student and it is hoped a great deal of competition will take place as to who can collect the most. Students are particularly requested to make themselves fully acquainted with the approximate financial position of the Hospital, and to know the most important events in the history of Guy's. When a great Institution like Guy's appeals for funds the General Public like to know something about the Hospital. How old is it? Who was Thomas Guy? Who were the chief great Guy's men whose names will for ever be remembered, and what did they do? How many beds are there, and how many In-patients and Out-patients are treated annually? Also, a most important points, how does Guy's compare in every way with other hospitals?

There will be constant references to these points in future numbers of the GAZETTE, and the Collecting Books deal very briefly with its history and financial position.

The Clinical Aspects of Local Anæsthesia.

A Lecture delivered at Guy's Hospital on Thursday, June 12th, 1924,

by F. N. DOUBLEDAY, M.R.C.S., L.D.M.S.

GENTLEMEN,—This morning I want to talk to you about the clinical side of local anæsthesia, because in the course of the ordinary lectures next week, I shall be dealing with the drugs, and the pharmacological aspect of the drugs, which we employ for this purpose.

The production of local anæsthesia may be brought about by three different means; by the surface application of cold, by the surface application of drugs, and by the injection of drugs.

The surface application of cold is generally accomplished by the use of the ethyl chloride spray. It has only a certain limited use; it is best employed when the patient's gum has been carefully dried, and then the spray is directed upon the near neighbourhood of the root of the tooth which it is proposed to extract. It is very desirable to prevent the collection of either saliva or the drug itself, within the patient's mouth by having a metal saliva ejector under the patient's tongue, so that the excess of fluid can be carried away. It is also advisable to instruct the patient beforehand, that if he finds his mouth is getting too full of the spray, he must simply spit out the contents of the mouth and not use water to wash the material away. One has to remember that the anæsthesia which is obtained by ethyl chloride is mainly an anæsthesia of the outer alveolar plate. If we bend the tooth to be extracted inwards as well as outwards, we bend against the inner alveolar plate, and that plate is not efficiently anæsthetised, and so pain ensues. But if we make the direction of the force towards the outer alveolar plate, where a greater depth of anæsthesia is obtained, the results will be much more satisfactory.

Next I come to the surface application of drugs for the production of local anæsthesia. For this purpose cocaine is the best of the various drugs, because it is the most readily absorbed. Cocaine hydrochloride 10 per cent. will be absorbed from the mucous surface with much greater ease than any of the other drugs which are available for the same purpose. If we take care to prevent the patient swallowing any of the cocaine solution, cocaine in that strength may be applied to a gum surface for a limited operation, such an operation for instance, as cutting away pockets in cases of pyorrhœa. Other drugs can be employed in the same way, for example, novocaine or carbolic acid. The latter can be used particularly in cases in which painful ulcers exist in the mouth. Silver nitrate has a limited applicability in the same connection. Some practitioners employ carbolic acid as a local anæsthetic before putting a needle in the gum, the object then being to diminish the effect of the pricking of the needle.

We now pass to the consideration of the method by which local anæsthesia by the injection of drugs is carried out. For this purpose it is customary to use novocaine (or procaine as the Americans call it; it is the same drug which goes under another name in another country). It is put up in tablets. The E tablets contain one third of a grain of novocaine, and 1/1200 grain of suprarenin, and two of these in 2 c.c. of Ringer's solution, boiled up in a drug holder, gives a strength of $1\frac{1}{2}$ per cent.

In preparing the solution, the most convenient thing is to have a drop bottle containing Ringer's solution, this when properly adjusted will easily put the requisite number of drops into the containing mug. Remember that if you boil the solution too long you will find that some of your 3 c.c. has been evaporated, with the result that, unless you notice it in time, you will be injecting a solution of greater strength than you had intended, and when that is so, there may be local swelling and pain. Therefore be careful that the amount of solution which you have put into the containing cup is still there after boiling, and that a definite proportion of it has not been evaporated.

Most of us are beginning to use, in increasing numbers of cases, the novocaine tablets which are labelled "F." As F tablets are

double the strength of E tablets, you only require one of the tablets for a case, and they do not contain adrenalin. The advantage of adrenalin in a tablet is that it gives a clearer view of the field of operation where an extraction has to be done. If the case is one in which there are buried roots, or lost roots, for the removal of which it is particularly desirable you should have a clear operation area, adrenalin is a very valuable adjunct to the anæsthetic drug. It is said, and I think with some truth, that it delays for a considerable time the removal of novocaine from the field of operation. It is also asserted that in cases in which toxic results have followed the use of local anæsthetics, it has been the adrenalin which has been the agent responsible for those results, and not the novocaine or other local anæsthetic which may have been employed. This statement is still undetermined, and it is a matter which you will each have to test for yourselves as your work goes on. There are two other drugs which we may sometimes add with advantage. If you know that a patient needs stimulation, two strychnine tablets of 1/60th of a grain each can be used. Should you, in this case, put another c.c. of solution? The answer is "No." The amount of drug contained in the tablet is so small that it is not necessary to modify the original amount of the Ringer's solution because of the strychnine you add. The other drug sometimes employed is atropine sulphate, the quantity being 1/300th part of a grain. There may be a sensitive cervical cavity at the neck of a molar for which you desire to use a local anæsthetic in order to desensitise the dentine. In such a case atropine will diminish the flow of saliva but you must appreciate the fact that it will be some twenty minutes before the atropine will begin to act. For this reason, you need to have your local anæsthetic all ready, and to inject it as soon as possible, and afterwards proceed with the particular operation, so that the drug acts while the earlier part of your operation is going on.

I will not on this occasion talk about sterilisation of towels, because most of you have seen that done already. But I show you here a set of towels which were sterile before they were taken out of the drum. Take a few of these single pellets of cotton wool and dip them into 5 per cent chromic acid, or 5 per cent. iodine solution, dry the patient's gum and then thoroughly sponge over the gum surface which is to be injected, and afterwards the tooth. So that whatever debris may have been there is efficiently cleared out.

Next we come to a consideration of the syringe to be used for the injection. I prefer the washerless syringe which I show you, issued by the Dental Manufacturing Company, there is a vulcanite plunger at the end. This particular one I have had in use two years, with constant boilings, and there has been no perishing of the vulcanite. In this instrument everything can be boiled. Sometimes practitioners object to the type because they say it gets stiff and so it will not pull through properly. But I think this seldom occurs if they are treated in the right way with vaseline. A little is put into the barrel of the syringe and also on to the piston, and after a little working up and down there is free movement. Then drop the syringe into the steriliser, allowing it to remain there for not more than two minutes, so that you do not boil away the vaseline. Some practitioners always keep their syringes in an antiseptic solution. That is all right if the antiseptic solution does not contain Lysol. Novocaine and other drugs are alkaloids, and alkaloids are precipitated by Lysol. Here I show you the syringe which Dr. Fischer, of Freiburg, brought out. It has a glass barrel and cannot be boiled and therefore it has to be kept in a closed case with strong formalin tablets (grm). The glass barrel is valuable when you are learning local anæsthesia, because you can see the character of the solution which you are using, you can see whether you have air in it, and you can hold it up to the light and see whether the solution is discoloured. So that the glass barrel has certain advantages. Its chief disadvantage, I think, is that it cannot be so well sterilised. Here is another pattern, known as Cook's syringe, which is useful. It is a metal syringe and can be boiled entire. The needle of the syringe is adjusted before the boiling is done, so that you have only to put in the whole thing and boil it. The solution used is the American Procaine. It is put into ampules with a rubber cork at either end. These can be boiled. You have a prepared cartridge of local anæsthetic, and, having pierced the cork at the distal end with the needle, you close the syringe, and the rubber disc at the other

end of the cartridge serves as a piston, and you can inject without delay. It is a very useful type of syringe for service when you have to visit a private house, for there it is not always convenient to take your whole apparatus for sterilisation. I always employed two lengths of needle, "short" and "long" respectively. The short needle is 2 c.m. in length, and the long one twice that length. The nozzle is always a short one. Those practitioners who prefer a long nozzle do so on the ground that that form is less liable to break the needle when in the patient's gum tissue. That, I feel is wrong. In the first place you have no business to break the needle in the patient's gum tissue; it is not by any means a necessary thing to happen. But if it does break, it does so at the junction of the shaft of the needle, with the solid head to which it is attached. When you are using a short head, there is always a considerable length of needle projecting beyond it, and if you are unlucky enough to break the needle, the breakage will not be in the length of the shaft, but where the head and the shaft of the needle join. The result is, there is always a length of needle sticking out in the patient's mouth; you can see where it is, and can take hold of it with forceps and remove it. If you use a needle with a long shaft and a short point the whole of that point sometimes breaks off and remains in the gum, and when it does so it is troublesome to find.

I now have to mention three methods of technique by which local anæsthesia may be induced, and it is necessary that you should choose between these three methods, having regard to the severity of the operation which you are proposing to perform. The simplest operation which you can do under a local anæsthetic is to desensitise some dentine, or cut away some sensitive dentine, or remove a pulp. In the case of the upper teeth, it is sufficient to take a short needle and a syringe loaded with 10 to 20 c.c. of novocaine and pass it into the mucous membrane of the patient's gum and the apex of the tooth, and slowly inject your solution into the neighbourhood where the nerves are running down through the outer wall of the antrum, you simply want to anæsthetise the nerve which enters the apical foramen, and a single injection is enough for that purpose.

It is necessary for me to point out to you that there has been, and still is, a great deal of discussion as to what is the best place at which to get at the nerve entering the pulp of the tooth. If you think of it for a short time you will see that obviously the essential thing to do is to catch the nerve nearer to the brain than to the tooth, but the nearer you can get to the apex of the root, the simpler is the operation. One should always aim at making the technique of any branch of surgery as simple as can be, and that is the reason for injecting in the neighbourhood of the bone above the apex of the tooth. In the case of the lower teeth you can produce anæsthesia the same way, as far back as the second premolar. But beyond this the bone is very dense, there is much compact bone, and it is difficult to secure satisfactory anæsthesia of the lower molar pulps in that way.

When you want to make a local injection into the gum tissue, you need to deal with the nerves near the alveolar plate as well. You want to bend the bone considerably inwards and outwards, and therefore you must make one injection in the same region in the outer side of the alveolar plate and in the palate. I can imagine you asking why not inject into the gum tissue immediately over the root of the tooth? If you think that, I ask you to try it for yourselves. Most of what I have learned about local anæsthesia I have learned while sitting in front of a looking glass and injecting into my own gum; and if you have any doubt as to which is the more painful place to make your injection, if you sit in front of a mirror and push a needle into the dense tissue over the alveolar process, and then push it into the loose tissue above the apex, you will soon find that injecting high up scarcely hurts at all, but injecting into dense gum tissue beside the alveolar process, and along the length of the alveolar process, is very painful and unpleasant, both at the time and afterwards.

We now pass to a consideration of the second method of inducing local anæsthesia, which I mention not because I practise it myself, but because it is recommended and practised by very competent dental surgeons. It was originally brought forward by Parrott, of Birmingham. He induces anæsthesia by taking a small drill, corresponding in size to the needle he intends to use, and having injected first of all a little local anæsthetic into the gum, he takes this drill and pushes it through into the bone and drills through the

outer plate and through the opening so made he introduces the syringe, and injects into the cancellous tissue and the bone of the mandible. That produces a very quick and certain anæsthesia. But, in so far as I have had experience of it myself, and have known of other people's experience of it, it is apt to be painful to the patient. You must realise that the greatest danger connected with local anæsthesia is the introduction of septic material, for if you introduce sepsis into the very small opening through the compact bone, so that it lies in the body of the mandible, the results may be very serious. Bryan Wood, of Kettering, has modified the method in this way. He uses a heavy type of needle, with a long nozzle, and pushes it into the cancellous tissue, just beneath the inter-dental papilla between the teeth he wants to anæsthetise, and posterior to the tooth on which he proposes to operate; and he injects into the inter-dental septum the anæsthetic between two teeth, and so causes a very satisfactory anæsthesia. The objection I have is that so many patients have either active or incipient gum infection and if you inject under considerable pressure into the region of the gingival trough and organisms or toxins are already there, the chances are that you may carry, if not organisms, toxins, deeper into the tissue and so cause damage to the periodontal membrane.

Now I want to speak of the various types of regional anæsthesia. For mandibular nerve blocks use the 4 c.m. needle and the short nozzle. Tell the patient to put his head in a line with the axis of his body; because the moment the head is extended or flexed, or he turns to one side, it put's one's bearings out, and one is not able to steer a straight course for the inferior dental foramen. Therefore get the patient to put his head in a direct line with his trunk; then paint over the anterior pillar of the fauces with 5 per cent. iodine. Put a finger into the patient's mouth and feel the (demonstrated) external oblique line, and on feeling further you come to something which Fischer calls the retro-malar fossa, behind the last molar. Here is another ridge, which is internal to the oblique line. Now take your charged syringe and pass it back at about the level of the anterior pillar of the fauces, and slide it along the inner aspect of the ascending ramus of the mandible until the needle is buried to half its length and is resting on this spring, which represents the position of the inferior dental canal. Following the Germans, I used to think it took half an hour for mandibular regional anæsthesia to develop; but I now find that the length of time it takes depends on the operator's skill in finding the nerve. As you get more experience you can find it developing in from five to ten minutes, deeper in degree in ten minutes than in five minutes, of course, but there is no need to wait half an hour. I must mention to you the structures between which we go. We pass through the anterior pillar of the fauces, and the needle passes along the inner aspect of the ascending ramus of the mandible. At first you meet with resistance, and that resistance may be on the outer side, or it may be on the inner side. The resistance on the outer side is likely to be due to your having hit on the retro-malar fossa and not having got enough space. If you feel that you are going into bone, it means that you are near enough to the mid-line; but if you follow too closely the line of the teeth, you find you soon pass into something which, by the feel, is obviously muscle, and if you inject the anæsthetic into that muscular tissue, there will result severe pain and inability to open the mouth properly. So you realise it is very important that you should pass through between the ascending ramus of the mandible and the structures which lie to the inner side of the space you are injecting into, that is to say, the internal pterygoid muscle and the internal lateral ligament of the jaw. If you do not hit on that at the first attempt, you must take the needle out and try again until you get it right.

Regional anæsthesia may be produced in the maxilla, by passing up the posterior palatine canal straight into the spheno-maxillary fossa, and anæsthetise the nerve as it passes from the skull to the infraorbital canal. Another method is to inject behind the zygoma and pass up to the posterior aspect of the maxilla. The technique of that is more difficult than the one I have just described. A third method is to have a bayonet attachment to the syringe and get the patient to open his mouth very wide and then get your needle as vertical as possible, and, with the help of the bayonet attachment, pass it up straight behind the maxilla. The production of regional anæsthesia in the maxilla is as easy as producing it in the mandible, but students should employ it more carefully; it is neces-

sary to get very familiar with the antiseptic technique and the whole method before attempting this. Your past anatomical knowledge will make you familiar with the pterygoid plexus of veins in that region, and it is easy to accidentally puncture one of those veins in doing regional anæsthesia into the maxilla. And if you carry sepsis in with your needle, it may be a very serious matter, leading to thrombosis of veins. It is possible to have an infection spreading backwards and so causing thrombosis of the cavernous sinus, which may result in the patient's death. I have not seen so bad a result as that, but I have seen a severe case of abscess behind the maxilla which was due to a practitioner trying to do regional anæsthesia. He introduced sepsis into that region, I feel sure. I have on two occasions, carried my needle a little too high and caused anæsthesia of the optic nerve, so that the patient suddenly found he could not see on that side. The anæsthesia lasted about twenty minutes and then passed off. You must realise how high these injections are. I mentioned what I did, not to prevent you doing it, because some of you will practise in country places, where time is an important consideration, and where regional anæsthesia is valuable. Before you do it, however, take care to be master of your subject, and begin with the simpler forms of regional anæsthesia, such as the mandibular, passing on to the maxillary as your last effort.

Now, what are the indications for local anæsthetics? Local anæsthesia may be used for any case in which the dentine is sensitive, and for any case in which the pulp needs to be removed. But in regard to pulp removal, it is necessary to remember that, as a matter of operative technique, it is probably impossible to remove the whole of the pulp tissue from the fine canals of the molar teeth; therefore it seems to me logical that one should spend a little more time in killing the pulp with arsenic, which will preserve pulp tissue, rather than remove the bulk of the pulp, and leave some tissue which may be dead and become infected later. It is a question, therefore, of expediency. Beyond the desensitization of dentine and the removal of pulps, one may use local anæsthesia for any extraction, but in the case of mandibular molars, it is desirable to do mandibular regional anæsthesia. Some people like to give a second injection on the buccal side to block the long buccal nerve where it comes into the gum tissue, in addition. Local anæsthesia is particularly indicated in any case in which time is required. If the extraction is difficult, if the tooth has roots which are buried in the gum tissue and you cannot easily see them, if you try to extract under gas, the moment blood comes into the field of operation you cannot be quite so sure of satisfactorily completing the operation. Local anæsthesia will give you an operation time of about an hour. With the best gas-and-oxygen which you can get the patient is apt to slip out of position and it is not so convenient. One can use local anæsthetics to remove tumours and cysts. During the War, those of us who treated gunshot wounds of the jaw found this method good for enabling us to handle portions of the jaw when wounds had been received. With regard to its convenience for use in civil practice, that is in another category. In the case of gunshot wounds, there are wounds of the face, and there is ready access, but in civil cases in which there is much cellulitis it is more difficult to secure satisfactory local anæsthesia.

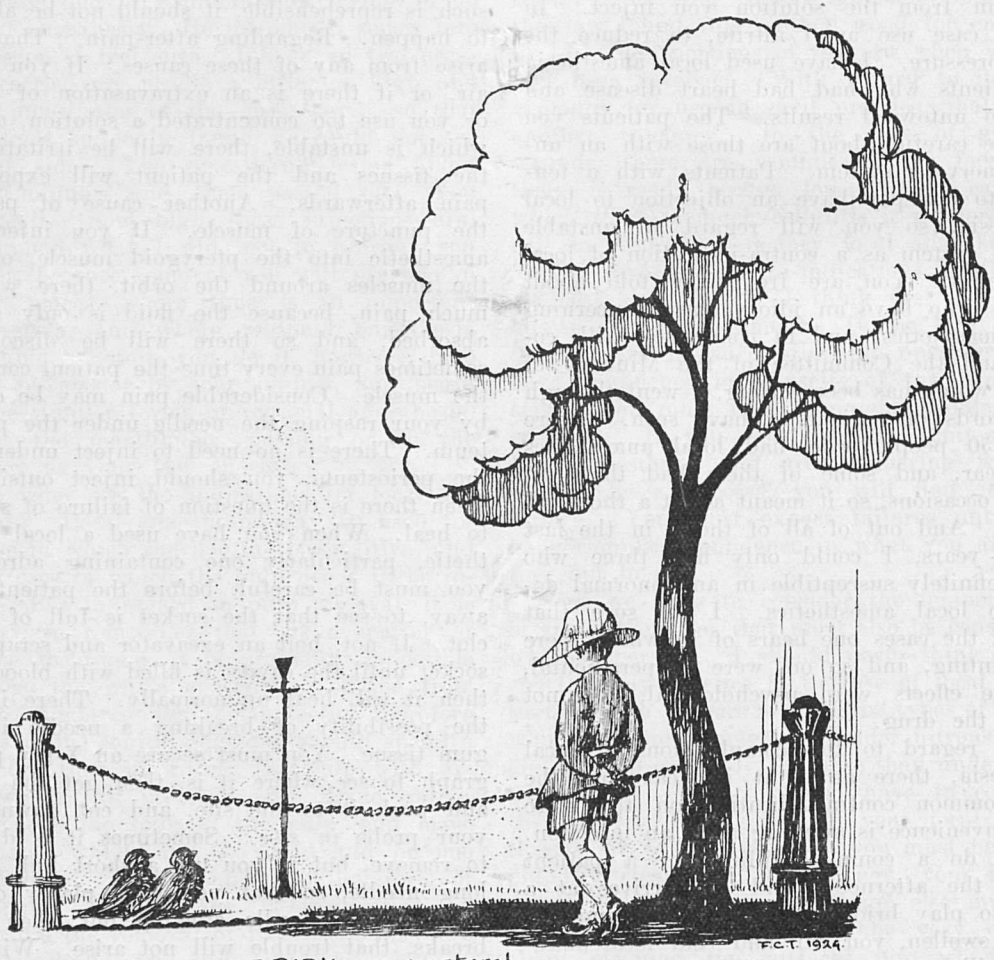
What are the contra-indications to the use of local anæsthesia? I think first comes the question of temperament. If the local anæsthetic is to be successful, the operator must have confidence in himself, of the American type. You must have complete confidence in yourself. If you set out to administer a local anæsthetic and are wondering whether it will be a success, you will find it is a failure. You must expect failures until you have complete confidence in what you are setting out to do.

Next we have to consider the temperament of the patient, for that must also be considered by the operator. I should never think of restricting my practice to the use of local anæsthetics alone. There are certain types of people who are more manageable under nitrous oxide and oxygen given by the nose than under local anæsthesia. And you also have to consider the problem of sepsis. If your local anæsthesias are to be successful, you must be scrupulously clean, and your drugs, your instruments, syringes and everything else must be quite clean, and you must be very careful about cleaning the surfaces into which you intend to inject. Where local sepsis is present, there are two lines of action open to you. If there is much sepsis at the gum margins of the lower incisor teeth, the ethyl chloride spray

will be all that is required. But in other cases, regional anæsthesia may be very serviceable, and you can use it in many acute abscess cases in which you anticipate the extraction will be difficult. Practitioners get worried about patients' hearts. Patients will sometimes say their heart is bad when there is nothing the matter with them; sometimes one gets alarming letters about the condition of the heart of a patient, and the anæsthetist has perhaps refused to give a general anæsthetic. But I have never experienced any difficulty from failure of the heart. If a patient has aortic disease, or very high blood pressure, that is an indication for omitting adrenalin from the solution you inject. In such a case use amyl nitrite, to reduce the blood pressure. I have used local anæsthesia for patients who had bad heart disease and with no untoward results. The patients you must be careful about are those with an unstable nervous system. Patients with a tendency to epilepsy have an objection to local anæsthesia, so you will regard an unstable nervous system as a contra-indication of local anæsthetics. You are frequently told about patients who have an idiosyncracy concerning local anæsthetics; and in connection with cocaine and the Committee of the Ministry of Health which has been sitting, I went through the records of patients I have seen. There were 750 people who had local anæsthetics each year, and some of them had them on several occasions, so it meant about a thousand a year. And out of all of them, in the last twenty years, I could only find three who were definitely susceptible in an abnormal degree to local anæsthetics. I am sure that most of the cases one hears of in which there was fainting, and so on, were temperamental, and the effects were psychological, and not due to the drug.

With regard to the complications of local anæsthesia, there again it is clear that the most common contra-indication on the score of inconvenience is swelling after an injection. If you do a complete filling for a patient during the afternoon, and she arrives at a house to play bridge in the evening and her face is swollen, you will find your local anæsthetic will be very unpopular. Therefore swelling, although not of great significance, is decidedly inconvenient. It most commonly occurs as a result of injection of air. If you screw the needle firmly on to such a barrel as this and draw the solution into it, you will see how easy it is to mix air with it. There is a swelling, of a painless character, and it takes three or four days to go down. Swelling may be due to a too-concentrated solution. If you allow your solution to boil too long, if it has been allowed to stand in air and evaporate, or used from stop-bottles, it may be too concentrated, and that may cause swelling. Sometimes one punctures a blood vessel, with resulting extravasation of of blood into the tissues. It is recognised by the characteristic appearance, like a bruise which one gets in boxing. Sepsis introduced with the solution is a cause of swelling, but such is reprehensible, it should not be allowed to happen. Regarding after-pain. That may arise from any of these causes. If you inject air, or if there is an extravasation of blood, or you use too concentrated a solution, or one which is unstable, there will be irritation of the tissues and the patient will experience pain afterwards. Another cause of pain is the puncture of muscle. If you inject the anæsthetic into the pterygoid muscle, or into the muscles around the orbit, there will be much pain, because the fluid is only slowly absorbed, and so there will be discomfort, sometimes pain every time the patient contracts the muscle. Considerable pain may be caused by your rasping the needle under the periosteum. There is no need to inject underneath the periosteum, you should inject outside it. Then there is the question of failure of sockets to heal. When you have used a local anæsthetic, particularly one containing adrenalin, you must be careful, before the patient goes away, to see that the socket is full of blood clot. If not, boil an excavator and scrape the socket until the cavity is filled with blood clot, then it will heal up normally. There is also the possibility of breaking a needle in the gum tissue. You must secure an X-ray photograph to see where it is, then get the probe and push it to the site, and cut down with your probe *in situ*. Sometimes it is difficult to remove, but if you use a short hub and a long needle, so that you have plenty of the shaft of the needle sticking out, then if it breaks, that trouble will not arise. With regard to fainting, I have told you that, in my experience, fainting when it occurs is not due to the local anæsthetic, but to fright generally. But if you have a difficult operation in prospect, you will be wise to arrange to do it after

the patient has had a good meal. Let it be done after a good breakfast, or after lunch. Some patients think that, like taking gas, the local anæsthetic is necessary on an empty stomach. Always order your patient to use a mouth wash. And a very useful thing, if you have done a difficult extraction, or even a filling, and you think pain may follow, give the patient tablets which can be taken at night, 5 gr. phenacetin, 5 gr. aspirin, 5 gr. caffein. I generally tell the patient to take them in hot milk at night before going to bed. He will then wake up having forgotten all his troubles.



SUMMER IN THE PARK. a pastoral

A HIGHLY CULTURED DENTAL SURGEON.

The Attempted Discovery of Southwark Cathedral.

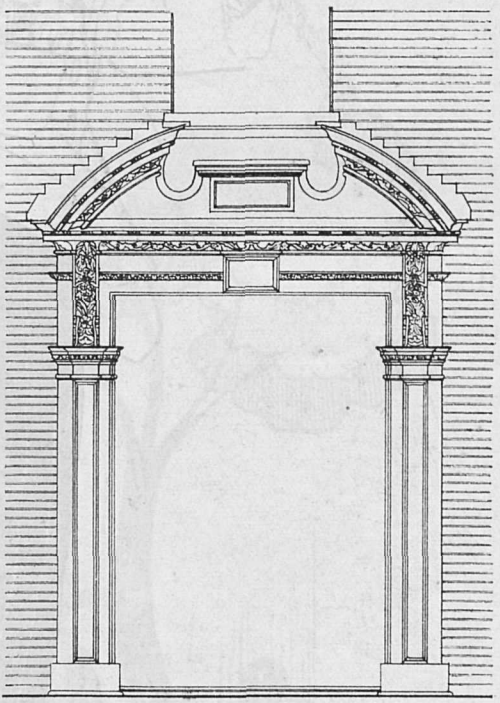
The Proceedings of the Southwark League for the Discovery of London.

SOME years ago I read of a man who, armed to the teeth, set out on a good ship from Hove on a voyage of discovery. After battling with the deep for several weeks land appeared in the far distances. Steering the vessel towards the unknown continent, the land became more and more definite. After a time he saw great houses near the water's edge and, behind them, domes and pinnacles. Within a short time he found himself, not on some foreign land but on the steps of the Hotel Metropole at Brighton.

As I walked through Clink Street a few days ago to meet the members of the League I pondered on the theme. How splendid to set out from St. Saviour's Church to find Southwark Cathedral! I would press the idea on my comrades.

We met as usual in the garden. There were present Thomas O'Connor, a Roman Catholic Irishman, Charles Brook, a medical student, Albert Cheeseman and William Clayson, citizens of Southwark, the last three wearing discs deeply indented with the letters "C. of E." lest they should be foully murdered by the Irish element and in need of orthodox burial.

The members looked to me for a suggestion, so I proposed that we should discover "The Cathedral." "A really broad-minded notion," said O'Connor. "It is time we paid some attention to Catholicism." We all looked at him in pained silence until he spoke again. "So you prefer to leave St. George's out of account," he said. To soften things down I explained that the Roman Catholic Cathedral was only opened in 1848 and hardly old enough to occupy the attention of the League. The olive branch was accepted and peace brooded over the scene and then Brook interspersed one of those futile remarks for which he is famous. "The Cathedral, by all means," he said. "I'll show you the way, it's quite close to Bart's." Again in sorrow and anger we adopted a somnolent stare. A Cathedral near Bart's! Yes, of course, St. Paul's, the great modern edifice in the midst of the dull, prosaic side of London. When we woke up we explained that we wanted to see what was best, and afterwards such things as the north side of the Thames can show. The Irishman and the man from Bart's both said that they had mentioned the only Cathedrals they knew and that if we had any other in mind we had better find it. We pointed out that it would add interest to the adventure if they took the initiative. This they agreed to do and under their guidance we started off to find "The Cathedral." We passed up the steps from the churchyard and turned to the right. Facing the post office Brook noticed a lofty stone building lurking behind. So we crossed



Architectural Drawing of Foster Hall, St. Thomas' Street, S.E.

the road, walked back a few paces until we came to Denman Street where is the tube station. We took a little passage on the right and found the object of the quest, but it was not a great church.

St. Thomas'.

It was, as Clayson said, the last surviving wing of St. Thomas'—modern, yes, but a real part of the hospital which said goodbye to

Southwark in 1862. We walked as far up the court as we could and saw the backs of the Chapter House and the old College next door. The backs reminded Brook that we had hurried over our visit to the Chapter House on the previous ramble. He urged that we should go back. Following him to St. Thomas' Street we turned to the left and filed down the steps to the vaults of the old church. Now the place is empty, for some twenty-five years ago, the coffins were removed to Woking. We wondered where the ashes of Thomas Guy rested from 1724 till 1780, but no record remains. Guided by Mr. Marsh we climbed some stairs into a narrow passage to the north of the church. The meanest intelligence in the League could discern that we were walking along an old cloister of the hospital. The spaces have been bricked up but the pillars remain to tell the tale. People who don't know that St. Thomas' had five quadrangles and five cloisters can have no idea what a vast place "our hospital" was. Two pillars in

Entrance to Foster Hall, St. Thomas' Street, as it was when it was an entrance to St. Thomas' Hospital.

the Foster Hall remain as they were. These we inspected and then passed out of that fine old doorway which was once the casualty entrance to the hospital. "If this is the Cathedral Chapter House I gather the Cathedral is near at hand," said Brook, as we walked aimlessly in the direction of Guy's. "Sherlock Holmes, Junior," was the comment made by Clayson on this wise saying.

Guy's Revisited.

At the gates I mentioned that on our previous visit we had missed three interesting things. Enumerating them I confessed that, in the Chapel, we had the worst stained glass in Christendom, so bad in fact that many patients, nursed back to health in the wards, have died of shock when they have seen it for the first time on their last Sunday. Being in robust health we survived the experience. Then we made our way to the Renter's Office on the other side of the court, and inspected the magnificent staircase and the Court Room used by the Governors to which it leads. This is an apartment architecturally beautiful and decorated by Sir James Thornhill, who was responsible for the painting of the dome of the Cathedral near to Bart's. The room also contains a very fine picture of Thomas Guy, who died ten years before this side of the quad. was built. Descending, I led the way through the colonnade to the end of "The Park," where there is an alcove which originally formed part of that London Bridge which was pulled down in 1830.

When we returned to St. Thomas' Street, O'Connor asked me if I would save time by telling him where Southwark Cathedral was, I assured him that I had always understood it was in the Borough High Street, and he agreed to explore the whole. Our route was direct south and we decided to examine all the little courts on the left hand side in case we should find a Cathedral. In the middle Ages this thoroughfare was the home of countless inns. Many have disappeared, some are commemorated by modern public houses and some have given their names to yards used only for commercial purposes. Every Southwark inn was burnt in 1675. A broadminded clergyman of the period made a note in his diary that the fire was the work of a Jesuit, but if the milk turned sour at that time there was always a Jesuit somewhere at the bottom of the jug. These hostelries served many purposes in the Middle Ages. The Canterbury Pilgrims who did not stay at St. Thomas'

put up here. Trading caravans going to southern towns started from Southwark inns at certain stipulated times, and gentlemen returning late at night and finding the gates of London Bridge barring their progress northwards were glad to welcome the shelter of a Borough inn.

With these things in mind we started off, some looking for South London's Cathedral and others visiting the sites of the coaching inns of another generation. Our first halt was in King's Head Yard, where stands a modern public house with nothing to commend it but a bust of Henry VIII. Up to the Reformation it was known as the "Pope's Head," but when the Pope ceased to be very important the name was changed. O'Connor was not backward in remarking that King Henry did lose his head. No Cathedral obscured the landscape and we could not remember that Henry VIII. had suppressed one here so we passed on.

The White Hart.

In the next yard, the White Hart, we listened to a long story from Clayson, which I will condense. Here stood an old inn which Shakespeare knew, for he made it the headquarters of Jack Cade, the rebel, who came up to London in 1450 with a force of 20,000 men from Kent and Sussex to ask for some quite reasonable reforms long since conceded. Cade was executed and his head was hung on a pole at the southern entrance to London Bridge. At a much later period the White Hart came into prominence which it will never lose, for it was here that Mr. Pickwick met Sam Weller, where the latter was employed as "Boots." Nothing remains to recall the old days,—not even a public house or a wall memorial. Only an enthusiast would discover the inscription "White Hart Yard."

The George Revisited.

Our next stop was at George Yard, which we entered in order to remind ourselves of the very uncomfortable quarters used by the play-actors of early Tudor days. In such yards as this they would arrange the "boards" or barrels, then dress in the stable, then go round the town with a drum to tell the world they had arrived and then return with the rag and bobtail of society and give the performance. The last-named gentlemen stood on the ground and were the "groundlings." The better off folk stood or sat in the first, second or third gallery according to their means. Which is of course the practice of to-day apart from the actors parade. We saluted Miss Murray, put our five heads in the window of the now disused coachman's room and passed on. Once more in the Borough High Street I reminded the throng that on this spot between the George and the Tabard the fire of Southwark began in 1676. I've never believed in the Jesuit theory. Much more likely that the men of Southwark, jealous of the notoriety of the men of London in 1666, decided to step into the limelight of fame and regarded a fire as a suitable instrument.

The Tabard.

Alas, the Tabard, or Talbot as many call it now, is no more. They rebuilt it on the old model after the fire and then destroyed all that was picturesque in 1875. For this information we have to thank the reverse side of the inn sign which bears a sleeveless coat or tabard on one side and the date of tragedy on the other. Nothing can rob the spot of romance and we were able to imagine Chaucer's

The Old Tabard Inn.

twenty-nine pilgrims assembling here in 1387 on the night before their ride to Canterbury. We saw Harry Bailley, a real person, M.P. for Southwark at this time, addressing the group and making his promise to go with the party if they would tell two tales each on the way and two each on the return journey.

At length we returned to earth and found ourselves in the shades of a red brick hotel of 19th century pattern.

John Harvard.

Our next halt was in Queen's Head Yard, which marks the site of an inn of that name which ceased to exist some thirty years ago. Historically the inn interested us, for in 1637 it became the property of John Harvard under the will of his mother. At the time he was in America, and shortly after he inherited the

Queen's Head he died near Boston from consumption, leaving half his fortune and all his books to a school at New Town, which prospered amazingly and became the premier seat of learning in the States. By this time we were all longing for a beverage rarely sold in inns, but knowledge was our first interest and I insisted on reading to the company the account for a civic dinner given at the Queen's Head in 1636. Among the items were the following:

Bred and Bere ...	...	11 6
Three joytes of lame ...	...	9 0
Three dishes of Eles ...	...	5 0
Three Ele pise ...	...	13 6
For Firinge ...	...	0 10
Fishes for the offisers ...	...	4 0

NEWCOMEN STREET.

Passing the yards of the Spur Inn and the Nag's Head we came upon Newcomen Street named after Mrs. Newcomen, who left money for the education of Southwark children centuries ago. Until comparatively recently it was called King Street and before that Axe & Bottle Yard. Never surely did pilgrims to a Cathedral study so many public houses, but we were no ordinary party. Here on the right-hand side we found the King's Arms of recent erection but having over the doorway a very fine sculpture of the Royal Arms of George III. It came there in this way. The south gate of London Bridge was taken down in 1760, when the buildings on the Bridge were removed. The Arms stood on the gate and were bought by a stone-mason, who placed them on a new hostelry which took its name from this most interesting relic. Returning to the main road we hesitated for a moment to look at three little thoroughfares which bear what O'Connor called "intrigueing" names, Tennis Court, The Ride, and Bowling Green Lane. Brook could see no tennis or ponies or bowls.

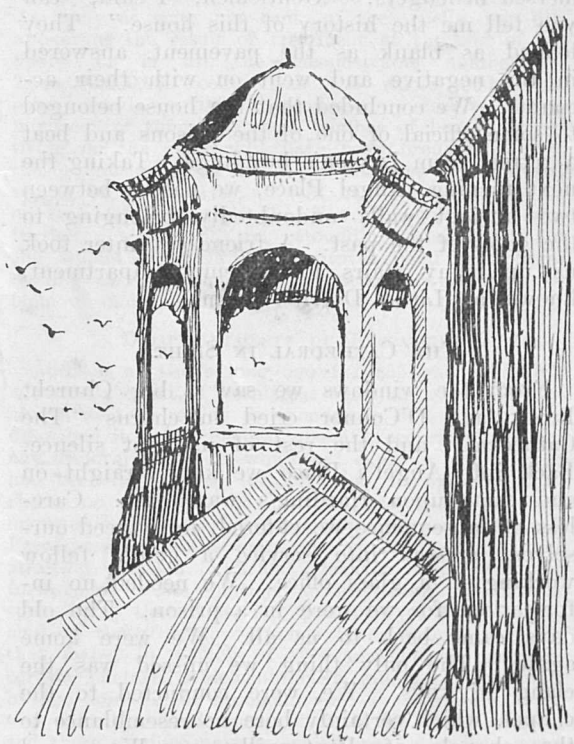
THE MARSHALSEA.

Only Clayson and I could visualise the more fortunate prisoners of the Marshalsea Gaol enjoying recreation on this spot. Prison life in all conscience was hateful enough in the bad old days, but it had compensations not granted now. Debtors who had grants from friends could enjoy games on the spot where we were treading. Others, not so well-off, could walk abroad in St. George's Field during certain hours, visitors could enter the precincts of the prison, and men and women who had money could visit a beer house in the place of detention.

Ending our meditation we returned to the High Street, noted two large cannon at the corners of Newcomen Street and turned southwards. We soon reached Mermaid Court, which now has a housing problem all of its own and which marks the site of the Mermaid Inn.

LAYTON'S BUILDINGS.

Passing Chapel Court and Layton's Grove we came upon Layton's Buildings—an oasis in a desert and a paradise for the London lover. Cheeseman rubbed his hands, Brook gave up talking about Bart's, O'Connor forgot the thing he lives for—housing, Clayson was informative and I led the party recklessly into other people's property. On our left were two or three little houses almost unique in the Borough, for they have front gardens and a tree or two. Further on to the left was a rabbit skin factory housed in an old wooden building made I imagine from the timbers of the ark. The manager greeted us and I introduced the company, to his manifest delight. He conducted us over his creaking



Marshalsea Bell-Turret.

house, where we saw numbers of women tearing hair off rabbit skins. Passing up some ancient stairs we were conducted to a room which contains a million rabbits' tails. In a lordly way Clayson asked what purpose these things served and the manager said they were sold to the makers of velour hats. Descending once more we studied an ancient wall which was undoubtedly part of one of the prisons which stood here for centuries. It is impossible to say where the Marshalsea ended and the King's Bench began. Maps and books give little help. We turned into a yard on the right-hand side of the wall. Before us on the top of a barn we saw a bell turret without a bell. This, I am informed by my friend Mr. Allen Walker, was the old turret of the Marshalsea in which a bell rang when visitors had to leave the prison. We moved forward studying the wall as we went. The observant Cheeseman noted the holes made by nails opposite an interesting house. I suggested that a vine once grew here, and the others agreed. We made for the old house with a canopy over the door and interviewed some well-dressed young men who a moment before were immersed in ledgers. "Gentlemen," I said, "can you tell me the history of this house." They looked as blank as the pavement, answered in the negative and went on with their accounts. We concluded that the house belonged to some official of one of the prisons and beat a retreat from Layton's buildings. Taking the next turning, Angel Place, we passed between two ancient walls undoubtedly belonging to the gaols of the past. A friendly printer took us up many stairs to an empty apartment, known as Little Dorrit's room.

The Cathedral in Sight?

From the windows we saw a big Church. Brook and O'Connor cried in chorus "The Cathedral," and the rest of us kept silence. Back into Angel's Place we kept straight on and came upon Harding's warehouse. Careless of consequence we entered, introduced ourselves, pressed into service a genial fellow working in a glass office. We needed no information, for we were in a prison. The old days came back to us all. We were home again. The only thing we missed was the clang of keys. We were conducted to the chapel, which certainly bore no resemblance to the chapels of Pentonville or Wormwood Scrubbs, but we took the guide's word for it. Then he took us right through the warehouse to the place where beer was sold to prisoners a century ago. This was easier to believe. Passing out into the fresh air, keeping straight on, we came into Long Lane. Here we turned to the right, ignored the open space on our right and made for the great church. Brook and O'Connor with success gleaming in their eyes read the notice board. Was it "The Cathedral"? No, merely, St. George-the-Martyr, Southwark. Defeat and despair were now written on their faces. Both refused to continue the quest. We followed them to a 'bus and made for a tea shop opposite the church with the square tower from which we started. Tea over, a conference was held and we decided to give them another chance. We shall find Southwark Cathedral on another day. T. P. S.

Change of Address.

A. H. B. Kirkman, F.R.C.S. Eng., "Bangweolo," Staplehurst, Kent.

F. O. Stohr, Chester House, Rondebosch, Cape Town.

Dr. Maurice Shaw and Mrs. Lauriston Shaw, 162, Ashley Gardens, S.W.1. Tele. Victoria 6751.

A. W. Hall, M.R.C.S., Jenny Lind Children's Hospital, Norwich.

Chas. H. Kidner, L.D.S., 42, Claremont Rd., Surbiton. (Tel. Kingston 76.)

Publications Received.

The Nursing Times, The Indian Medical Gazette, The Medical Journal of South Africa, Bratislavské Lekárske Listy, The British Medical Journal, The Magazine of the London Royal Free Hospital School of Medicine for Women, The Medical Press, The Dental Record, Health and Efficiency, The Prescriber, The Antiseptic, St. Bartholomew's Hospital Journal, The Journal of Cancer.

Guy's Hospital Gazette.

(Established 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The Gazette Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

Medicine in the Making.

Pressing Home the Attack against Cancer.

Studying the Nature of Growth.

[*We are grateful for the following article which appeared in the "Morning Post," July 14th, 1924.*]—

Experimental work of deep intrinsic interest, which it is hoped may lead to results of great importance, is now in progress in the Pathological Laboratories of Guy's Hospital, which this year is celebrating the bi-centenary of its foundation.

The following article based on a visit to the laboratories describes certain very remarkable results that have already been obtained, and throws light on the difficulties of research work with its endless disappointments, which are, however, amply compensated for by the successes achieved.

TO appreciate the significance of all research work, including that which is carried on at Guy's Hospital, it is, perhaps, necessary to have a clear mental picture of the nature of research work. The trained research worker is in the position of a skilful locksmith who has inherited a sort of Aladdin's palace containing thousands upon thousands of rooms the doors of which are all locked. He knows that certain of these rooms contain rich treasures. Without his training as a locksmith it would be useless for him to attempt to enter on his heritage. With it imagination and intuition will suggest that certain rooms are more worth study than certain others, but however keen his intuition and imagination may be some of the rooms that he opens after diligent study of the locks will be found empty, as in the case of research work that gives purely negative results; others will contain objects for which he can see no possible use, but which years later turn out to be invaluable, as is the case with research work such as that of Clerk Maxwell on the etheric waves, which seemed of purely theoretical interest, yet years afterwards formed the basis for wireless telegraphy and wireless telephony; and others again, though these are rare, will contain the treasures of which he has immediate need.

In the Pathological Laboratories of Guy's Hospital for some months past there has been in progress a careful study of Leukæmia, that may be described as a cancer of the blood. For some reason, at present quite unknown, the white cells in the blood, which are man's best friends in combatting disease, increase enormously in number. Normally in a cubic millimetre of blood there should be about eight thousand of these, but this number will rise to as much as six hundred thousand, with the result that the red cells which carry the essential oxygen to the tissues are crowded out. It has been known for some time that this condition can be relieved by the application of X-rays. X-rays, however, as they are popularly known, are a bundle of rays of varying lengths. The longer ones are very soft and barely penetrate the skin, so that they are very dangerous if a long exposure is given. For this reason research work has been carried out during the past year on this class of cases with extremely hard rays which are obtained by means of using a powerful apparatus and by stopping all the softer rays with thick plates of zinc or copper and aluminium, so that the only rays which penetrate these plates likewise penetrate the skin and reach the deeper structures of the body, with little or no greater effect as regards burning of the skin than upon the deeper structures. It is hoped that by means of these rays much greater beneficial effects will be obtained in these blood cases than has been possible in the past. The remarkable effects that result on the application of these rays have been closely studied at Guy's, and will shortly be published in detail in the medical journals. Treatment may last for an hour, and during this period drops of blood are taken from the patient every few minutes, to be subjected later to a laborious count. These counts are continued daily so long as the patient is in hospital. Patients who came into the hospital, apparently moribund with counts of 600,000 white blood cells per cubic millimetre have left it with their blood normal and apparently cured, though a long time has got to elapse before it can be stated that the cure is definite.

There is one curious mystery about this work. The volume of blood in a man may be estimated generally as consisting of from 9 to 11 pints. This works out roughly at 5,000,000 cubic millimetres. As many as sixty per cent. of these cells may disappear as the result of treatment at the end of one hour, or in all the inconceivable number of 2,500,000,000,000 cells from the whole body. In other words, a living population exceeding many hundreds of times the total number of human beings living on the globe will have been brought through the circulating blood under the influence of this steady stream of death rays and will have vanished, leaving no trace of their passage. The fact constitutes one further instance of the astounding adaptability of the animal organism which proves itself capable of dealing at a moment's notice with a scavenging problem of immense magnitude.

Disappointments of Research.

Addison at Guy's long ago in 1855 gave the first accurate account of pernicious anæmia, which remains almost as true to-day as when it was first written. He described it as a "general anæmia, occurring without any discoverable cause whatever; cases in which there had been no previous loss of blood, no existing diarrhœa, no chlorosis, no purpura, no renal, splenic, myasmatic, glandular, strumous, or malignant disease." Pernicious anæmia remains one of the many puzzles awaiting solution. Various theories have been put forward as to its solution, an interesting one among them being that it is due to a lack of hydrochloric acid in the stomach. It has been thought possible that owing to a lack of this acid in the stomach certain bacteria which normally would be destroyed by the acid in the stomach were able to work their way into the duodenum, get into the blood stream, and there produce poisons, which when absorbed were

capable of destroying the circulating blood cells. Only a week ago high hopes were entertained at Guy's that they were on the track of a possible criminal bacillus, which rested under the gravest suspicion. In half a dozen cases of pernicious anæmia the suspect had been found when the intestinal content had been diluted and examined present in large numbers. Examination of similar material derived from patients not suffering from the disease showed him present only to a very much less extent. The facts seemed to point clearly to his guilt, but when the twenty-first patient not suffering from anæmia was examined this organism was found in great numbers, throwing grave doubt on the results of months of work, which till then had given magnificent promise.

THE CANCER PROBLEM.

The cancer problem is perhaps more peculiarly baffling, because of the simplicity of the hypothesis that can be put up as to its causation. Every symptom of the disease can be explained by stating that the condition is produced as a result of irritation, and is caused by the natural process of repair being continued long after the need for it has passed. Another simple theory which again would explain it is that certain embryonic cells fail to develop at the proper time, and wake into what would have been their normal activity later in life. Of many lines of attack that are being tried at Guy's two may be mentioned. Chimney-sweep's cancer has long been recognised. It was till recently uncertain as to why this class of worker was peculiarly liable to the disease, though for some time the irritating effect of soot has been suspected. Interesting results with tar had been obtained, and Guy's Pathological Department started experimenting not with soot itself, but with the extracts of soot, which were soluble in fats. As everyone knows even a malignant tumour causes no pain until it exerts pressure on a nervous tissue. To find whether there was any casual relation between the extracts of soot and the disease, a number of mice were painted superficially with the extract. True malignant growths were produced, and the exact relation between chimney-sweep's cancer and the special parts of the body which it attacks was established.

For a complete solution of the problem more light has to be thrown on the exact mechanism of growth. Among the more remarkable curiosities of experimental medicine are the successive generations of heart tissue that have been cultivated in America. Some fifteen years or more ago the living heart tissue was taken and placed in special culture solution. This has been divided and sub-divided at regular intervals, and still continues to perform the essential function of heart tissue, namely, to beat. Work somewhat related to this is now in progress at Guy's and is in its early stages. A microscopic section of tissue from a young chick is being taken. For sake of argument it may be assumed that the section is round. This tissue is placed in salt solution, and in these conditions can be kept alive for as long as six days. On examination definite growth can be seen to have taken place. The section is no longer round, but it has grown out in various directions, presenting, roughly, the appearance of feelers. It is hoped that a study of these sections may throw light on one of the greatest biological mysteries, the mystery of growth, which is essential to the continuance of life, and which is intimately linked up with the causation of the most dreaded of all diseases.

The Sudan Medical Service.

THIS service is responsible for carrying out civil medical work and public health work in the Sudan.

I. STAFF.

The Staff consists of:—

(a) Director Sudan Medical Service, pay £E.1,500—1,800.

(b) Senior Physician Khartum and Omdurman Civil Hospitals, pay £E.1,200—1,750.

(c) Senior Surgeon Khartum and Omdurman Civil Hospitals, pay £E.1,200—1,750.

(d) Medical Officer of Health Khartum Province, who also acts as Assistant Director of Sanitary Services and draws pay and allowances amounting to £E.1,200, rising to £E.1,500 after years.

(e) A number (at present 11) of Senior Medical Inspectors and Medical Inspectors who are all British. Their pay commences at £E.720, and rises by 2 yearly increases to £E.1,080 and then after a 3 years' interval to £E.1,200.

All Medical Inspectors will receive a salary of £E.1,200 after 13 years' service.

Every Medical Inspector is expected to pass an examination in the Arabic language, approximately on the completion of 2 years in the country.

(f) A number of Medical Officers who have received their medical training either at Kasr el Ainy Medical School at Cairo or at one of the Syrian Medical Schools.

(g) A number of Assistant Medical Officers, natives of the Sudan, who have been given a purely clinical training in one of the larger Sudan Hospitals.

II. PENSION.

Medical Inspectors on completion of their term of probation are allowed to join the Sudan Government Pension Scheme, to which they subscribe annually 5 per cent of their salary and according to the provisions of which they can retire at the age of 48—if they have completed more than 15 years service—with a pension reckoned at 1/48th of the mean of their last 2 years' salary for every year's service.

Widows and orphans are entitled to a proportionate pension if the official had completed 12 years' service. (See Sudan Pension Ordinance which can be seen by applying to the Egyptian and Sudan Offices of Inspection, Queen Anne's Chambers, St. James's Park, S.W.1.)

Thus a Medical Inspector who retires at the age of 48, after 20 years' service at a pay of £E.1,200

a year, would receive a pension of £E.1,200×20/48, i.e., £E.500 a year.

A Medical Inspector who has done 20 years' service is sure of retiring with £E.500 a year.

If, however, he has been appointed to one of the higher posts he can obtain a considerably higher pension.

In the event of a Medical Inspector being in possession on joining the service of one of the higher qualifications (such as F.R.C.S., M.S., M.R.C.P., M.D. and D.P.H.), he may be allowed to count up to 2 years spent in post-graduate resident appointments at one of the recognised Medical schools as service towards pension.

III.

Leave of 3 months on full pay is granted for 5 out of the first 8 years. After this annual leave at the rate of 3 months every year is granted (subject of course to the exigencies of the service). Leave can be accumulated up to 4 months in any one year.

Study leave can be granted for work at some definite subject up to a period of 7 months.

IV. Allowances and General Practice.

Medical Inspectors draw travelling allowance while travelling in their own province at the rate of 350 m/ms. per night.

While travelling outside their own province at the rate of 550 m/ms. per night.

Medical Inspectors draw forage allowance for a horse if one is kept.

Assisted passage allowances are made at the present time at the rate of £E.22—each way for the Medical Inspector and a similar amount for his wife if he is married.

General Practice which is at present small and limited to two or three of the larger towns may be carried on so long as it does not in any way interfere with his official duties.

A Medical School has recently been established in Khartum to train natives of the Sudan for work as doctors in their own country.

The Medical Teaching at this section (which is carried on in English) is given by members of the medical service and an allowance is made to each lecturer at the rate of 60 piastres (12s.) for each lecture, except in the case of the Medical Registrar who is seconded from the medical service for this work and who receives an allowance of £250 a year in addition to his pay.

V. The Duties to be Performed.

A Medical Inspector soon after his arrival in the country is generally placed in charge of the medical and sanitary work of a province. His Headquarters is the chief town of the province, at which there is a general hospital. There are usually smaller hospitals and dispensaries at less important centres in the province which are also under his charge and which it is his duty to supervise.

He will probably have two or three Medical Officers under his supervision, several Assistant Medical Officers and one or more British Sanitary Inspectors.

His duties are:—(1) To act as a Consulting Physician, Surgeon or Obstetrician in all cases submitted to him by his medical staff, and in consequence he must have very considerable surgical experience (and be able to carry out all ordinary surgical operations).

(2) To initiate, organise and supervise all medical and sanitary work in his province. This includes extensive antimalarial work and often the supervision of large irrigated areas.

(3) To carry out the medical supervision of schools and the medical examination of candidates for Government service and for service towards pension.

(4) To train Assistant Medical Officers, native Sanitary Overseers and to advise and direct Medical Officers in the carrying out of their duties.

(5) He will probably be called on at a later date to take part in the teaching at the School of Medicine at Khartum.

VI. Opportunities for Research.

The Medical Inspector will have opportunities for research into many interesting problems which most urgently need solution in connection with certain tropical diseases, e.g., Blackwater Fever and Kala Azar. The Wellcome Tropical Research Laboratories afford most ready and cordial co-operation with all such work.

VII. Climate and Health.

The Sudan can be divided into three zones—a northern, a central, and a southern zone.

(a) The northern desert zone is hot and dry in the summer, but with cool nights. In the winter it is seldom unpleasantly hot and often cold.

(b) The Central Sudan for 8 months in the year has much the same climate as the northern zone, but there is a rainy season of 4 months (more or less) during which time there is a considerable rainfall and large areas become malarious, but in which it is possible to keep limited areas malaria-free.

(c) The southern zone becomes increasingly tropical in character as the southern boundary of the Sudan is approached. In this region the mosquito-protected house, the mosquito net and protective quinine have to be relied on for the greater part of the year.

VIII. Exercise and Amusements.

The Medical Inspector will find that although he is hard-worked he is generally able to get his game of tennis or in some places polo in the afternoon, when he is at his station.

His work, however, involves a considerable amount of travelling either by rail or steamer, or by car, camel or horse, according to the district in which he is stationed.

In most parts of the Sudan shooting of some kind is to be had and in the southern zone excellent shooting of every description is obtainable. In many places also very good fishing is to be had.

The service is one that provides good professional work with opportunities for research in a country that is likely to develop rapidly combined with an open-air life, plenty of exercise and in many places good fishing and shooting.

The climate is often disagreeably hot, but the nights are cool and during the winter months it is very cold.

O. F. H. ATKEY,
Director, Sudan Medical Service.

Correspondence.

A Yarn.

DEAR SIR,—I don't know whether you like yarns or not, but if you do you can publish this if you like. I was once District Surgeon in the Transkei and I was sent for by a Native Chief to see his boy. Said boy, about 10 years old, got on the back of a goat. The goat threw him over its head. In transit it tore his scrotum. Well, I went out and sewed it up on the floor of a hut leaving all my sutures long. Two days later the Chief came in much distressed as worms were crawling out of the wound. These were the long silk sutures. Yours,

NEMO.

May 23rd, 1924.

The Post-War Patient.

DEAR SIR,—During the last ten years great changes have taken place in the social position of the people. On the whole the middle classes have come off badly and there is no doubt that the country is much poorer on account of the war. The better class private patient is rarer and their families are smaller. The Insurance Act has also had a profound influence.

This practice is in a working class town where I should estimate that 90 per cent. of the people depend on weekly wages. It has often struck me how apt we are to send this class of patient to Out-Patients when we require a second opinion and whether we could not do a little more for our Consultants.

I may add that my patients have invariably been treated with every kindness and consideration at Out-Patients, at the same time I make it a rule to ask this question, except in the case of the obviously necessitous:—

"Would you like to see Dr. —— or Mr. ——, at his private residence and pay his consulting fee. I am sure he would not mind seeing you at the hospital if further advice is necessary and if his fees are beyond your means."

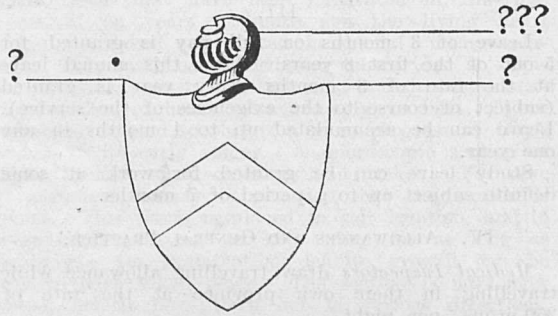
I frequently find they are delighted to fall in with my idea and take an honest pride in paying their fee. Verb sap.—Yours truly,

POST TRIGENTA ANNOS.

The Gazette Arms.

DEAR SIR,—May I be permitted to draw your attention to a very weird device which surmounts the Arms of Guy's Hospital on the GAZETTE. I should like to know what it is meant to be, as it corresponds to nothing known in armoury.

I happen to know all about the armorial bearings (arms, helm, crest, wreath, mantling, supporters, etc.) which belong to Guy's; I have a copy of the official details from H. M. College of Arms, and I am aware that they are genuine and legally established, having been granted 200 years ago by the Crown by Letters Patent, recorded in H.M. College of Arms. This being so, I am sure as a patriotic Guy's man, you would wish the fine arms to be used properly, and the design used to be that drawn by a really good artist. The present one used is old and Victorian, and very bad artistically.



Tracing of a weird device on Guy's Hospital GAZETTE, evidently meant to represent the Arms of Guy's Hospital, on Shield, but this is surmounted by a weird affair, like a spoon-warmer. It does not correspond to anything known in Heraldry.

The correct thing to use is either a plain Shield of the Arms, or else the full bearings. The object on top is ludicrous and one cannot imagine what it is meant to be; it is unlike any helm that has ever been known, and even then crest, wreath and mantling are missing from it. Guy's is one of the few hospitals possessing legal arms.

I would like to get done for you a really good black and white drawing and to have a fine new block made for you. My grandfather, Charles F., was a Guy's man (M.R.C.S. 1863). I hope you do not belong to the school that hates to have errors pointed out and refuses to accept advice.

My book on Heraldry was published by John Murray last November. (12s., illustrated). You may have seen it. Reviewed in "Hospital and Health Review," May.—Yours truly,

C. A. H. FRANKLIN.

Kwato,
Liskeard Gardens,
Blackheath, S.E.3.
9th August, 1924.

Reviews.

Medicine.

Synopsis of Midwifery. By A. G. MAGIAN, M.D. Published by William Heinemann. 1923.

THIS is a good book. It is more than a synopsis: it is readable. In it there are certain parts of the subject that are dealt with perhaps somewhat too briefly. Unfortunately, also, some of the measurements given for the pelvis and fœtal head are in error; and these errors are not always in accordance, *inter se*—that, however, is fortunate because it draws one's attention to them.

It would seem that this book—as far as examinations are concerned—contains most of that which is necessary to salvation.

TO be published in the early autumn:—
Practical, Physical and Colloid Chemistry for Students of Biology and Medicine. By LEONOR MICHAELIS, Professor extraordinary at the University of Berlin. Translated from the Second German edition by T. R. PARSONS, B.Sc. (Lond.,) M.A. (Cantab), Demonstrator in Physiology in the University of Cambridge. Illustrated.

This book was written to meet the needs of biologists and physicians who desire to become acquainted with the more important of the widespread applications of physical and colloid chemistry to the problems of life and disease. As the work is essentially experimental, the author bases all his remarks and deductions on practical exercises and makes it clear that without personal observation of the phenomena described it is impossible for the student to obtain a real understanding of the subject. The need for such a work is not confined to the author's own country and it seems appropriate that English students of biological and medical science should have access to the book.

Laryngology.

Ear, Nose and Throat Treatment in General Practice. By GEORGES PONTMANN, M.D. Translated and Edited by R. SCOTT STEVENSON, M.D. Published by Messrs. Heineman (Medical Books), Ltd. *Price* 10*s*. 6*d*. *net*.

THIS little book deals chiefly with the treatment of the various medical diseases of the ear, nose and throat. The indications for surgical intervention are outlined briefly in most instances, but no account is given of the operative technique employed. For English readers the book has gained in its translation, for the prescriptions have been rendered into their English equivalents as far as possible. The first forty pages, dealing with the technique of treatment, contain much useful information upon such subjects as the various methods of application of medicaments to affected mucous surfaces, heliotherapy in the treatment of disorders of the pharynx and larynx, removal of wax from the ears, Eustachian catheterization, exploratory puncture of the maxillary sinus, etc.

Dr. Pontmann's advocation of extending the period of removal of the gauze over seven or eight days, after anterior plugging of the nose, appears to be courting acute infection of the middle ear and is hardly likely to be favoured by modern British oto-laryngologists. The remaining pages deal chiefly with the special medical treatment of the various medical diseases affecting the parts concerned in this speciality. A brief description of each disease, hardly more than an amplification of its title, is appended, followed by a detailed account of its special treatment, with numerous prescriptions. The general treatment of the various diseases receives rather scant attention in most instances and one feels that perhaps rather more space might profitably have been devoted to this aspect of the subject.

The nomenclature of diseases employed renders rather obscure in some cases the exact nature of the malady under consideration. Dealing with the treatment of Epistaxis there is no mention of the use of the hæmostatic balloon, a method in most cases as efficacious as, far more tolerable for the patient, and less dangerous than anterior plugging of the nasal fossa with gauze. Under the heading of Fibrinous Rhinitis, beyond stating that it is wiser for the patient to keep to his room to make quite sure that there is no danger of infection, there is no indication that the majority of examples of this disease are cases of nasal diphtheria, and in consequence antitoxin is of much greater value than ointment.

This book will be of value, especially on account of the large number of useful prescriptions it contains, as a work of reference for the consultant, and the general practitioner interested in this branch of medical science.

Radiography.

A System of Radiography: With an Atlas of the Normal. By IRONSIDE BRUCE. Second Edition, by J. MAGNUS REDDING, F.R.C.S. Pages XII. +98. Illustrations, 197. Published by Messrs. H. K. Lewis & Co., Ltd., London. *Price* 30*s*. *net*.

IN first presenting this work to the public, the author expressed his conviction that accurate radiographic interpretation was facilitated to an enormous extent if every radiogram reproduced an exactly similar picture of the normal parts examined. That was the object of his work, to give a description of the technique by which this end could be obtained, together with a complete series of normal radiograms of all parts of the body.

Mr. Magnus Redding in preparing the second edition has maintained this scheme. The illustrations have been entirely renewed and each part of the body has now four illustrations devoted to it. The first shows the position of the patient on the X-ray couch with the particular arrangement of the plumb-bob to ensure that each negative taken shall have a similar position to all other negatives of that part. The other three illustrations are of normal parts at the age of 5, 10 and 25 years of age respectively. The exceptions to this arrangement are that there is only one normal picture of each of the following:—the skull, the thorax and the renal and upper ureteric areas.

Beneath each radiogram has been noted the developmental variations and abnormalities commonly encountered.

The book is well-produced and the radiograms are clear. It well carries out the purpose for which it was written.

General.

The Medical Insurance Practice. By Mr. R. W. HARRIS and Mr. LEONARD S. SACK.

THIS book is offered as a reference work under the provisions of the National Insurance Acts and it certainly carries out all that it claims to be and should be at hand by every medical practitioner who is engaged in Insurance Work, as he will find in it the most reliable information in all points which are likely to arise in the course of his daily practice. At the end of the book will be found a very useful set of forms.

Guy's Hospital Reports. Vol. 74 (Vol. 4 Fourth Series). No. 3, July, 1924. Published by Messrs. Wakely & Son (1912), Ltd., London. *Price 12s. 6d. net.*

THIS number of the "Guy's Hospital Reports" contains eight articles, of which two, "A Note on Gall-Stone Formation" and "The Diagnosis of Gastric and Duodenal Ulcer with the X-rays," are well illustrated by microscopic and X-ray photographs respectively. Other articles on gastric reaction, test-meals and the investigation of the duodenal contents in man by means of the Einhorn tube are the results of practical investigations, carried out by the authors, as are the account of 117 cases of gall-stones, insulin treatment of diabetes mellitus and the measurements of the red cells in the anæmias of spine and dilothriocephalus latus infection. A report of two cases of neurofiliona of the cervical sympathetic concludes a number, full of interesting reading.

Sport.

Cricket.

Guy's v. Hampstead.

Played at Honor Oak Park on July 5th.

THIS was the first time our old rivals had come down to Honor Oak Park since the war, and they did us the honour of including J. S. Pitts, the old Middlesex fast bowler in their attack. Hampstead's skipper won the toss and decided to bat first on a good wicket, against the bowling of Van Schalkwijk and Durr. Dunkley and Crump began very cautiously, but fortunately were both well taken in the slips by Durr off Van Schalkwijk before they were properly set. Thereafter wickets fell quickly, and none of the batsmen, except S. P. Mead, showed any ability to cope with our excellent bowling. They were all out for 58 runs, leaving the Hospital a very easy task. Williams and Van Schalkwijk opened the Hospital innings and when 28 runs were on the board Van Schalkwijk was cleaned bowled by Gow. Curtis came in and carried the score to 47 when he was bowled by a "snorter" from Pitts, but Catchpole and Williams soon knocked off the few remaining runs. Thereafter the game developed into an opportunity for batting practice and both Catchpole and Kendle played excellent cricket in compiling 53 and 78 respectively.

SCORES.

Hampstead 58. S. P. Mead 31.

Guy's.

L. S. Williams, b Gow	27
J. G. Van Schalkwijk, b Gow	7
A. H. Curtis, b Pitts	15
L. Catchpole, hit wicket, b Gray	53
J. Durr, b Gow	5
S. R. Trick, l.b.w., b Gow	1
G. Fellowes-Smith, b Gray	3
C. Kendle, *not out*	78
A. G. Ensor, c Mead, b Pitts	26
D. Calder, b Pitts	0
Extras	3
Total	218

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk...	14	4	26	5
J. Durr	14	4	24	4

Guy's v. Catford Wanderers.

THIS game was played at Catford on the 9th July. The Hospital batted first on an excellent wicket, but fared disastrously losing three wickets when only 30 runs were on the board. However, Durr and Ensor became associated and treated the spectators to a marvellous exhibition of hitting. Durr smote lustily at everything, and so accurate was his eye that in his long innings he only gave one difficult chance. His 154 included 12 sixes, much to the discomfort of the tennis players who were endeavouring to pursue their peaceful pastime on various courts round the ground. Ensor played polished cricket, and although he did not hit a six, the ball frequently reached the boundry by beautiful ground shots. The fourth wicket fell at 277, the partnership having put on 244 runs. At this total we declared leaving Catford Wanderers about 2½ hours in which to get the runs. Van Schalkwijk and Durr however again proved too much for our opponents, and they gave the batsmen no chance of going for the bowling. They were all out for 66, leaving the Hospital easy winners.

SCORES.

Guy's.

L. S. Williams, b Lowe	10
A. G. Ensor, c Crocker, b Redding	103
L. Catchpole, c Fear, b Lowe	3
A. H. *Curtis*, b *Hopkins*	1
J. Durr, not out	154
Extras	6
Total (for 4 wickets declared)	277

J. G. Van Schalkwijk, G. Fellowes-Smith, G. Horton-Parr, P. Droomer, D. Calder, V. Preen did not bat.

Catford Wanders 66. Lowe 38 not out.

Bowling analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk...	10	4	20	8
J. Durr	7	2	19	2
L. S. Williams	4	0	19	0

Guy's v. Honor Oak.

Played at Honor Oak on Saturday, July 12th.

HONOR OAK'S ground wore a festive air for the visit of Guy's Hospital for the match is always made a charity match and a collection is

made on the ground to benefit some Hospital. All the proceeds of the gate and various competitions such as guessing the number of peas in a bottle or the weight of cake were added to the collection this year and the whole devoted to Queen Charlotte's Hospital.

Honor Oak turned out at full strength, and included J. H. Lockton and W. T. Cook the Surrey County players. From our side E. J. Pye-Smith was unavoidably absent. Our opponent's won the toss and Cook and Alwin came in to bat. Only two runs had been made when Alwin stopped a straight one from Van Schalkwijk with his leg and was given out. Cook and Brunton then became associated in a partnership which added 60 runs, when Cook was bowled by a "yorker" from Van Schalkwijk. Brunton was batting very well, although he was let off twice early in his innings. The catches were very difficult however—but he could not get any of the remaining batsmen to stay with him and they were all out for 169. This was a stiff task for Guy's, with bowlers of such merit as Lockton and Swain against them. Ensor and Williams opened the Hospital innings and off Lockton's first ball, Williams scored four by a nice drive past point. From the sixth ball, however, he was wonderfully caught by Maxwell at gully. However, Ensor and Catchpole carried the score to 48, when Catchpole was out l.b.w. Shaw was out with the addition of only one run and Durr was stumped after making three. Kendle then became associated with Ensor and made an invaluable stand which produced 65 runs. Five for 119!! Fellowes-Smith then went out to partner Ensor, who was batting brilliantly, and endeavoured to play a constrained innings while Ensor made runs. This he did and played six overs without scoring. He was eventually bowled by a beautiful ball from Lockton. Trick next contributed 11 runs and helped to carry the total to 155, Lockton again being responsible for the fall of the wicket. We now only wanted 15 runs to win and still had two wickets to fall. Horton-Parr went in, but did not see his first ball from Lockton, which uprooted his off stump. Preen, the last man, went out as the hope of his side. Blest with no nerves whatsoever he safely played out Lockton's over, and then Ensor faced Swain, the slow and wily left-hander. He hit a four, survived a confident appeal for a catch behind the wicket, scored a single and collared the bowling to face Lockton again. No more runs were scored off Lockton's over and Preen had Swain against him. A two and two singles were scored and Swain appealed against Preen for l.b.w., but much to our relief he was given not out. Ensor faced Lockton again, and only 5 more runs were wanted. Playing very carefully but very confidently Ensor could not score a run from Lockton's over. Preen scored a single off Swain, Ensor got another and with only two runs wanted for a draw and three to win, Preen swung his bat and with perfect timing hit Swain's fifth ball out of the ground. It was a wonderful finish to a sporting and exciting game and was greeted with tremendous enthusiasm by the spectators. Preen then proceeded to hit out and at 185 the innings closed. Ensor was not out 83 and to him go the honours of the game. His innings was a splendid exhibition of good cricket and his patience when things were going wrong was remarkable. It was an excellent performance on the part of the 1st XI. for Honor Oak are one of the strongest if not the strongest Club side in London.

SCORES.

Honor Oak.

W. T. Cook, b Van Schalkwijk	26
R. C. Alwin, l.b.w., b Van Schalkwijk	2
R. S. Brunton, c Trick, b Durr	64
F. Read, c Catchpole, b Van Schalkwijk	17
J. Lockton, c Shaw, b Durr	1
T. Maxwell, c Kendle, b Van Schalkwijk ...	2
G. Abel, c Williams, b Fellowes-Smith	6
C. Campbell, b Fellowes-Smith	11
E. Malley, b Van Schalkwijk	8
A. Thorpe, b Van Schalkwijk	21
A. E. Swain, not out	1
Extras	10
Total	169

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk...	16	2	83	6
J. Durr	17	4	67	2
G. Fellowes-Smith ...	6	2	9	2

Guy's.

L. S. Williams, c Maxwell, b Lockton	4
A. G. Ensor, not out	83
L. Catchpole, l.b.w., b Swain	24
G. D. Shaw, b Cook	0
J. Durr, st. Malley, b Swain	5
C. Kendle, b Lockton	23
G. Fellowes-Smith, b Lockton	0
J. G. Van Schalkwijk, b Lockton	0
S. R. Trick, b Lockton	11
G. Horton-Parr, b Lockton	0
V. Preen, c Brunton, b Swain	20
Extras	16
Total	186

Bowling:—Lockton 6 for 37.

Shooting.

ON Thursday, July 17th, we sent a team of five to Bisley to shoot for the Inter-Hospital Cup. This Cup is shot for at a distance of 500 yards with ten shots to count per man.

The weather was fine and all had a most enjoyable day. The competition was shot off at six o'clock, and after an exciting shoot Guy's proved victorious by the narrow margin of one point.

For this happy result we have to thank Messrs. Hallpike and Wimbush; they took great pains in securing three good rifles and in producing them in shootable condition.

As our last pair was finishing excitement grew intense; a rapid calculation showed that both had to score two bulls each in order to secure the cup; both rose to the occasion manfully, and enabled us to secure an unexpected victory.

Full score as follows:—

Guy's—		
Wimbush	...	47
Hallpike	...	45
Ford	...	47
Hart	...	46
Brown	...	43
Total	...	228
Bart.'s—		
Rowe	...	49
Elgood	...	47
Harker	...	44
Maloney	...	44
Jory	...	43
Total	...	227
London—		
Simpson	...	46
Willis	...	45
Bretton	...	43
Gardner	...	42
Russell	...	40
Total	...	216

Hospital Information, etc.

Specialities.

The Medical Motor Policy.

WE draw our readers attention to the terms of the Medical Motor Policy issued exclusively through the Medical General Insurance Association Limited, a prospectus of which has been sent to us.

The Policy gives full cover in connection with cars belonging to members of the Profession against unlimited Third Party risks—Fire and Theft—Accidental Damage—Transit Risks—Agreed Value for total loss and accidents to Assured and Wife. In addition, the comprehensive premium includes the following special benefits which should be of great interest to medical men. Loss of Rugs, Coats, Luggage and Surgical Instruments being carried in the car; in the event of accidental damage to Insured Car whilst the Assured is travelling under direct special summons TO a patient and/or emergency case, resulting in his not being able to continue his journey, the Association will pay:—

(a) For the hire of another vehicle to take him to his destination for an amount not exceeding £5.

(b) An amount not exceeding £5 for Loss of Fee if the Assured suffers bodily injury which prevents him from rendering professional services to the said patient immediately.

For such comprehensive cover the premiums would appear to be extremely low. For instance, the annual cost to insure a 10 h.p. Car, value £200 for the full Policy embodying all the above benefits, would be £8 11s. For a 15 h.p. Car, value £500, £12 16s.; and for a 20 h.p. Car, value £600, £15.

From the above premiums may be deducted No Claim Bonus of 10 per cent. or 15 per cent. whichever was allowed by the previous Policy upon transfer; 15 per cent. is given if the Car is driven only by the Owner and 10 per cent. if driven solely by the owner or one named person including a paid Chauffeur. So far as we are aware no other Policy gives this latter reduction.

The Policy is fully underwritten by the National Employers' Mutual General Insurance Association, Lid., and the security is therefore without question.

It would seem worth while for those members of the Profession who own cars to get in touch with the Medical General Insurance Association, Ltd., whose address is 22, Henrietta Street, Strand, W.C.2.

We understand that the Medical Motor Policy is only one branch of the Association's activities and that they are prepared to act as advisors upon all matters of insurance with a view to obtaining for medical men the very best Policies for all kind of insurance.

Pass List.

University of London.

First M.B. Examination.

July, 1924.

W. L. M. Bigby.	K. E. Lane.
C. F. Cosin.	B. A. Moss.
F. W. Gilbert.	R. J. L. O'Donoghue.
R. Glanvill.	F. M. Phillips.
G. H. Gool.	W. P. Roe.
W. J. Johnson.	D. B. Smellshaw.
*W. D. G. Jones.	F. F. Stemm.

*Distinguished in Biology.

Second M.B. Examination.

Part I.
July, 1924.

C. Arkles.	G. v. R. Mostert.
A. Danin.	O. Plowright.
R. L. Harward.	W. G. Stanford.
R. A. Leader.	G. H. O. Thomas.
W. H. Miller.	

Guy's Hospital Gazette.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *August 30th, 1924.* *Number 943*

PASSIM

THERE was no clatter of an ambulance. No accessary in the shape of a policeman. No reinforcements of "lidy" friends. Yet his entry was dramatic and swift, something of the nature of an indiarubber ball bouncing hilariously from corner to corner of a room. Actually, *He* was a dog, nosing round and round about, this way and that, never still, forever setting out on a new tack, and all the while his hind leg working furiously in mid-air like a piston-rod disjointed. Of course neither party said anything, and emphatically he was not a dog to be whistled at. But by a process of reasoning which we are wont to employ daily concerning our fellowmen, it was plain, when one took note of his countenance, that this was a genial dog, one that would probably mature into a gay old dog, and to make out that at the moment he was plainly asking in his doggy manner for medical attention. "I am throwing myself upon your mercy," he seemed to say, "and it's up to you to put me right." And the House-Surgeon, skilful in the art of healing as distinct from the art of departmental reference, complied willingly and effectively.

It makes a poor, inadequate story, this little scene enacted at the front surgery, we grant you, but its artistic value was not to be reckoned as historical but rather as symbolical, something which in a flash lit up a truth long obscured in shadow. "Toute la nature fournit de transparents symboles," said someone discussing the fables of La Fontaine. And from out of this incident between the dog and the doctor the whole spirit of alliance reached between Man and beast suddenly became crystallised and clarified, scintillating like a star; for no longer was the wolf at the door, but had padded its way through and had been succoured. It was a portent not to be lightly disregarded.

If one considers in what way Man concerns himself about animals, it will be found that his interest in them is now not aggressive but protective. (Are there not Yellowstone Parks, Zoological Gardens, Societies for Prevention of Cruelty, and Society for Protection of every genus imaginable?). Our one dread, it would appear, is not to be abandoned on this earth with no other company than our own tiresome race, and for that reason we have come to look upon the animals as too precious to be improvidently neglected. The time is long past when our ancestors first fashioned their cunning weapons and howled with glee as their first shot took effect. To-day, the spirit of Saint Francis is renewed within us, so that we proudly call the donkey our brother, the pelican our aunt, the elephant our uncle. Nor is it companionship alone which we mortals derive from the dumb creatures, but also a very practical lesson in optimism and courage. Turn your eyes away from the welter of politics and squalid stories, and of crime, and look up at the figure standing aloof, but alert, the embodiment of wit, good humour, and chivalry, the very incarnation of all that is decent in this world—the figure of Felix the Cat!

And now it is fully time to emerge from the verbal undergrowth through which we have been struggling for what seems an eternity, and to state our trouble. But first we excuse ourselves with an epigram of Bernard Shaw: that a man with a grievance always digresses. Our grievance is none other than that contemptible, noisesome little creature which hides itself in the nooks and crannies of our hospital, we mean the cricket. A murrain on it! It renders the night hideous with its cheerless *chirrup, chirrup, chirrup,* a sound reminiscent of a dripping water-tap, exasperating in its precision. It is not a sound of joy, of anger, or of want or pain; but just a sound of devilment, of taunting persistency. Have we not already fairly extolled the virtues of the animal kingdom and welcomed the kinship between Man and beast? Yet, to adopt the phraseology of public notices, it was a privilege, a piece of courtesy, we had hoped not to see abused. We are quite aware that no less an auther than Charles Dickens himself has written a book in which the cricket is associated with the idea of domesticity, but this, we submit, is only another example of these mistaken ecstasies into which artists are at times prone to hurl themselves. Did not Wordsworth too write a poem to a cuckoo, and was there ever such an unoriginal, repetitive bird? A pest such as the cricket is entirely wasteful. From out of locusts, we are told, oil can be expressed that will set aeroplanes a-throbbing, while rabbits, we know, are a valuable source of revenue for Australia and New Zealand. And that is good. Tit for tat. But what can one do with the cricket? We recommend, in desperation, that the problem be relegated to an institution actually existing, whose title is even more unpleasant to the ear than the creature itself, namely—"The Incorporated Vermin Repression Society and College of Pestology."

▭

It will be gratifying to the medical profession to learn that according to the report just recently presented to the public by the Chief Medical Officer of the Ministry of Health, Sir George Newman, the health of the nation for 1923 shows a distinct improvement on that of former years. In accounting for this good piece of news it must be borne in mind that the metreorological conditions which obtained during 1923 were undoubtedly propitious, and one must also make allowance for the fact that the epidemics were fewer and of a less devastating nature than usual. Yet it cannot be denied that much of the improvement (notably a decreased death-rate, an infant mortality rate the lowest yet registered, and a considerable decrease of epidemic and infectious diseases), is due to a more efficient public health service and to a wider application of medical knowledge in general. Yet Sir George Newman is not entirely satisfied with results, for he complains that "many medical officers of health still 'muddle on' from hand to mouth, the victims of every passing whim or popular 'stunt,' instead of organising their work as responsible and competent men. The progress of the science and art of medicine in the last quarter of a century has, it is true, outstripped the organisation of our Sanitary poor laws, and education authorities. The new wine is still being poured into old wineskins. But what is much more pertinent to our labours, we fail in hundreds of Sanitary districts to use the facilities provided." Our nation cannot afford such incompetency to pass unchecked, since the maintenance of national industry is directly dependent upon national health, and Sir George Newman does right in laying stress upon the deplorable housing conditions and sanitary arrangements still prevalent among the poorer quarters of our great industrial towns. For "loss of time due to sickness, most of which is preventable, costs the country not less than ten times more than that which it loses owing to strikes and labour disputes."

▭

We extend our heartiest congratulations to Mr. O. G. Morgan on his recent appointment to the Staff as Assistant Ophthalmic Surgeon.

▭

Just now there is talk in the air of the coming Rugger Season, and rumours of mighty Trojans flying from South Africa to swell the ranks are rife, while we have been also informed that two of last year's team have already been doing the treadmill round the ground at Honor Oak Park. Our greatest need is, of course, a first class scrum-half to fill the place of F. Bekker, and should he be forthcoming our team ought to show considerably better form than last year.

Surgery in Exophthalmic Goitre.

Clinical Lecture by Mr. E. G. SLESINGER.

GENTLEMEN,—Exophthalmic goitre is a disease that does not usually present many problems of diagnosis, but, on the other hand its ætiology and treatment are sufficiently beset with difficulties to make it one of the most interesting conditions with which we have to deal. To-day I want to discuss with you its treatment mainly from a surgical point of view, but before doing so it will be best to consider upon what, if any, physiological basis that treatment rests. Pathologically the symptom-complex of exophthalmic goitre is invariably associated with an increased vascularity of the thyroid and with a hyperplasia of the thyroid cells. Experimentally the complete removal of the thyroid will produce a condition of operative myxœdema which is in most respects the exact opposite of exophthalmic goitre. Excessive thyroid feeding in monkeys produces a condition almost, but not quite, identical with the disease as we see it in patients.

Until a short time ago it would have appeared safe to say that whatever the primary cause might be, exophthalmic goitre was always associated with an excess of thyroid secretion. Recently, however, Plummer at the Mayo Clinic has shown that the bad cases undergo a marked improvement when treated with iodine, which, with other experiments, goes to show that there may not only be an excessive production of secretion, but that the secretion may not be a normal one, in other words that there may be a dysthyroidism as well as a hyperthroidism.

Kendall succeeded in isolating the pure crystaline active principle of the thyroid and gave it the name of thyroxin, its composition being trihydro-triiodo-oxy-beta-indole-propionic acid, that is to say, an iodine compound of tryptophane, which you know as one of the amino-acids resulting from the tryptic digestion of protein.

It would seem probable that in exophthalmic goitre the excessive secretion produced is not sufficiently combined with iodine and that the abnormal substance resulting is responsible for some of the toxic symptoms as opposed to those which indicate physiological overaction. Why the thyroid should undergo this excessive activity is by no means certain, but certain facts may help us to form at any rate a working theory.

In the first place experiments show that the thyroid and the suprarenal are mutually stimulating glands, whereas both of them are inhibitory to the pancreas; and in addition Goetsch and others have proved that in exophthalmic goitre there is an excess of adrenaline circulating in the blood. Chemically adrenaline would appear to be a compound built up on tyrosin just as thyroxin is on tryptophane, both of these substances being amino-acids produced in the intestine during digestion. If, then, an excess of these two substances were brought about in some way, we would have all the conditions needed to produce exophthalmic goitre, since once excessive secretion were set going in these two organs, they would mutually stimulate each other to further secretion provided they were supplied with sufficient of the raw material of their secretions, namely, tyrosin and tryptophane. Such excessive action is temporarily induced by emotional shock, but normally only lasts a short time presumably owing to shortage of the raw material necessary for the production of the secretions. In the normal intestine a portion of these amino-acids is broken down by the bacteria of the intestine and a portion is absorbed as such, the relative amounts depending on the nature and number of the intestinal organisms. It is an interesting speculation that if the intestine for some reason should become deficient in amino-acid splitting organisms, excessive amounts of the two substances we are discussing would be absorbed, and all the condition necessary for the development of exophthalmic goitre on this theory, once the emotional stimulus had acted, would be fulfilled. While it is yet far from certain whether this is or is not the case, Harries has done very suggestive work on this point, and in those cases where I have had an opportunity of securing them, specimens of ileal contents have shown very little bacterial content.

I give you this view merely as a working theory, and if it is ultimately proved true it suggests naturally the line of treatment ultimately likely to be successful. In the mean-

time while so much is speculation, we must seize on the only definite fact, which is the overaction of the thyroid. Surgical treatment aims at reducing this overaction by removing a portion of the overactive gland. It is not actually a method of cure, but if it can be made safe it is the best method of treatment, in fact, the only treatment other than that of symptoms, at present available. As I have said, surgery aims at amelioration rather than cure, and its objects are:—to save life in the very severe cases; to lessen the severity of symptoms; to shorten the period of invalidism; and to prevent the onset of such secondary conditions as cardiac failure from prolongation of the active stage of the disease.

We have then to discuss how surgical treatment may be undertaken with reasonable safety. The two most important factors to be considered from this point of view are the period of the disease at which operation is undertaken, and the nature of the operation that is performed.

Exophthalmic goitre is, roughly speaking, a self-limiting disease. Certain very acute cases may progress to death within a few months of the onset, while certain very mild cases become stationary in a similar period and never show the whole symptom-complex at all. Most cases, however, run a definite course extending over some four, five, or even six years. At the end of that time the active condition is over, though the patient is left with such things as exophthalmos, an irritable heart, etc., as evidence of the storm through which she has passed. During its course the severity of exophthalmic is by no means uniform, and as Plummer has shown it consists of a series of exacerbations of the intoxication known as crises. As a rule the symptoms increase slowly for from eight to nine months, the height of the curve being marked by greater severity of all symptoms and by the onset of some, such as diarrhœa and vomiting, previously absent. After a varying period of weeks the patient becomes better, and though she does not reach normal she is markedly improved. The weight may begin to rise, diarrhœa and vomiting stop, and the menses, which have frequently ceased, may begin normally again. Further crises with subsequent improvement occur during the course of the disease at varying intervals. They are seldom so severe as the first, but each one leaves the patient's general condition a little worse than it was before.

Operation should never be undertaken during a crisis, as that is when a fatality is most likely to occur. The treatment at that time must be medical and operation should be postponed until the symptoms are well on the down-grade. It is not wise to operate within two months of the maximum severity of symptoms. Unfortunately it is just at this time when the increase of symptoms induces distrust of whatever treatment is being carried out that the surgeon is often called on to see the case with a view to operation. Safety, however, lies in waiting, and in this disease above all others it is the surgeon who must take the responsibility of deciding when operation is to take place. It is therefore of the utmost importance when seeing a case for the first time to take a most careful history, often none too easy a task with these patients, so as to secure a proper orientation and to get a clear idea as to what stage of the disease is being dealt with, and when the crisis has taken place or is to take place. During the first few months of the disease, in an average case, operation is seldom indicated, but in face of a steady increase in severity of symptoms the sooner within reason the operation is undertaken the better, because the duration will be shorter and the permanent changes will be less. Diarrhœa, vomiting and rapid loss of weight contra-indicate operation, as they show the near onset of a crisis and should lead to medical treatment until it is past. The same applies to cardiac dilatation which, if as much as an inch in extent, will almost certainly lead to disaster if an operation is performed.

To summarise what we have seen as to the time for operation, therefore, the chief points are—

1. As a rule, not to operate within the first six months.
2. Not to operate within two months of a crisis.
3. To chose the down-grade of severity of symptoms rather than the upgrade.
4. Always to get a clear idea of what stage of the disease each particular patient has reached.

The next point to consider is what operation is to be done.

This is of importance, not only in regard to mortality, but also in regard to results. Many so-called surgical failures are cases in which not enough has been done, and it is not right

to throw blame on the principle of surgery which really belongs to its technique.

Generally speaking it can be said that in a chronic case of moderate severity it is not enough to remove one lobe or one lobe and isthmus only, and if the highest measure of improvement is to be obtained, at least three-fourths of the total gland tissue should be removed.

In considering the surgical plan to be followed with any particular patient the probable most-operative reaction must be visualised and compared with the existing severity of symptoms. If it appears possible that the severity of the reaction may carry the patient over the border line of safety, a stage operation is advisable. This will be used in most of the severe cases. The stage operation will consist either of two partial thyroidectomies at intervals, or a single or double or even two single ligatures followed by thyroidectomy. The reaction to a single ligature, which can be done in bed under local anæsthesia, is a most valuable guide to the probable behaviour of the patient after a subsequent thyroidectomy and should always be employed in cases of doubt. If a ligature is performed, it should be a ligature of the upper pole of the gland rather than the superior thyroid artery itself, as the inclusion of the sympathetic filaments passing to the gland probably affects the result to a considerable degree.

In a large number of cases it will be found safe to perform partial thyroidectomy limited to one lobe at the first operation, and to remove a portion of the other lobe subsequently. Such a decision will depend partly on the severity of symptoms and partly on the ease and speed of the operation and the amount of blood lost. In cases of doubt it is far better to do too little at the first operation than too much. In the less severe cases and those operated on early in the disease a one-stage operation is frequently safe and advisable. It is an interesting fact that the improvement after the first operation is usually so marked and the discomforts are so small that patients rarely withhold consent to the second procedure. It must be emphasised that ligature of one or even two poles of the gland is practically never by itself sufficient. Its advantages, however, are that it provides a guide to the probable degree of reaction in a given case, that it will improve a bad patient sufficiently for thyroidectomy to be safe, that it is of great value if doubt exists as to the period of the disease in relation to the crisis, and lastly it is of value in that its simplicity and painlessness take away the fear of the more severe subsequent procedure. If this little operation were performed more frequently as a preliminary, many of the post-operative deaths in bad cases would undoubtedly be avoided.

Certain questions of technique also are of great importance in these cases. First and foremost is the amount of bleeding. These patients stand loss of blood very badly indeed and every care must be taken to avoid it. Vessels must be secured before they are cut or if bleeding quickly underpinned with a needle. This is better than a forceps and ligature as the tissue is friable and ligatures cut through easily.

The other important point is gentleness in handling. In my opinion that is the chief if not the only advantage of local anæsthesia. Adequate exposure and the use of knife or scissors in preference to blunt dissections are the chief aids in this respect.

The anæsthetic question has long been a matter of controversy, and there is little doubt that in the past much responsibility for fatalities has been put on the anæsthetists which properly attached to the surgeon. Most workers are agreed that *chloroform* is a poison to these patients and *should never be used under any conditions*. Intratracheal ether, which of recent years has been advocated, is in my opinion contra-indicated, firstly, because the depth of anæsthesia required to pass the intratracheal tube exposes the patient to unnecessary risks, and secondly, because the operator is apt to deal unknowingly roughly with the trachea, being deprived of the warning which ordinary anæsthetisation permits. In my opinion the choice is between open warm ether and local anæsthesia. The latter has advantages in allowing co-operation by the patient and in forcing the necessary gentleness of handling on the operator. On the other hand, the mental upset entailed by the knowledge of the operation and the additional time required appear grave disadvantages.

Light ether, or better, ethanesal, anæsthesia gives every satisfaction and in expert hands appears to me the anæsthetic of choice.

Finally, it cannot be over-emphasised that the psychology of these patients has a great bearing on the result. Far better results and a far better post-operative course follow in

patients who are convinced beforehand of the beneficial results of surgery. Such a frame of mind should be deliberately induced in these cases, as can easily be done by suggestion during the preliminary period of treatment, so that operation, when it comes, seems to come at the earnest desire of the patient, who under those conditions suggests to herself a feeling of safety which has a definite bearing on the realities of the situation.

The Discovery of Lambeth Palace.

Illustrations by Thomas O'Connor, and A. S. G.

ACCORDING to plan, and a week after a stormy voyage to Blackfriars Bridge, the three officials of the Southwark League for the Discovery of London met in the Cathedral garden to make a second attempt to reach Lambeth Palace. We were joined by two potential members, William Clayson, known to many as the oldest inhabitant of the Borough, and Charles Brook, a medical student from "Bart.'s."

The proceedings were opened by a homily on peace and goodwill among men. This was followed by a business meeting. The advantages of joining the League were pointed out to the newcomers and both of them agreed to become life members and to pay 10s. 6d. each. The three original members withdrew for a space. Cheeseman gripped the money tightly while we discussed what should happen to it. We couldn't agree, and so the business meeting was adjourned to be resumed in a jolly little restaurant known to the Treasurer. O'Connor suggested that on that occasion the money should be available, and I seconded. Needless to say, thousands of members will be welcomed on the same terms, and no accounts will be published.

Towards Blackfriars Bridge.

We hurried our new members through Winchester Square, Clink Street, Bankside, Moss Alley, Park Street, Wagstaff Buildings, etc., and eventually reached the underground passage which leads to Blackfriars Bridge. In order to suppress unhappy memories I discoursed learnedly on the Black Friars who used to live just over the river on the spot where the *Times* is now published, and we reached the Bridge without incident. We crossed the road and dived down Upper Ground Street. On the right we found a dark passage which led to the river.

"I will show you where I spend my holidays," said Clayson, so we followed him to the end. Then he began to mutter short sentences—"What could be nicer?—what a fine expanse of mud—why go to Southend?—what a noble view of London—bring a deckchair and a pipe—better than Margate—no niggers no bathing machines—back to nature—refreshing breezes all the year round." So he went on till one by one we withdrew and he found himself talking to the sea breezes. Feeling that 10s. 6d. might be in jeopardy, Cheeseman repented of his coldness and gently led the speaker to the waiting group.

Moss Alley.

Turning to the right we came upon Queen Arms Court, which we explored. "Most unhealthy—horribly dismal," murmured the medical man. We all agreed. Fortunately few people live here, for while houses are plentiful most of them have been empty for years. This encouraged O'Connor to make one of his periodical attacks on England. "I thought there was a shortage of houses in your country," and we answered in chorus, "So there

is." To which he replied, "What do you make of this?" We all stood silent, for we made nothing of it. As in Park Street, so in this

View from 93 Park Street.

depressing court, there are empty houses standing at a time when families are being broken up because overcrowding has become a positive scandal. The English element in the party looked a little ashamed and we passed on. Keeping as near to the river as possible and going westward we came upon Jamaica Wharf. No one opposed our entry, so we passed inside

Antedeluvian Houses opposite "Boddy's Bridge."

to look at some interesting old wooden houses. Further to the west and facing Boddy's Bridge we came upon a row of picturesque houses with tiled roofs. Brook proved to have a passion for old ladies, and finding one at a doorway sidled up and began a conversation. She was a whimsical old soul. In answer to the question as to the age of the houses, she said pleasantly, "Thousands of years; they were here before the Flood; I remember that,—it was hundreds of years ago." She was a playful old thing, but we thought there was an element of truth in the story. At sometime, probably fifty or sixty years ago, the Thames overflowed, and in the locality the happening was known as the Flood. Our medical friend raised his hat and told us he had not expected to meet Noah's wife. Once or twice we turned up little courts on the right in order to see the river and get fine views of the Victoria Embankment. Eventually we found ourselves under Waterloo Bridge.

Lambeth.

Here we entered the Borough of Lambeth and found things rather dull for a time. O'Connor declined to share our pride as loyal churchmen when we noted that the streets on our left were named after the more recent Archbishops of Canterbury—Howley, Tenison, Sutton. In the neighbourhood we caught sight of a tower standing by the waterside which is known to those familiar with the Embankment opposite as the erection which advertises, after nightfall, a Scotch beverage of which we know little in South London. A picture of a highlander whose kilt moves in the breeze is shown in electric light. Our oldest inhabitant assured us that at one time two such towers stood here and that in them shot was made by some clever process a hundred years ago. In 1826 he told us the upper floor of one of them was burnt out. He could remember the light in the sky, so he said. At the end of Belvedere Road we came upon the back of the County Hall—the new home of the L.C.C.—a fine building now happily being completed.

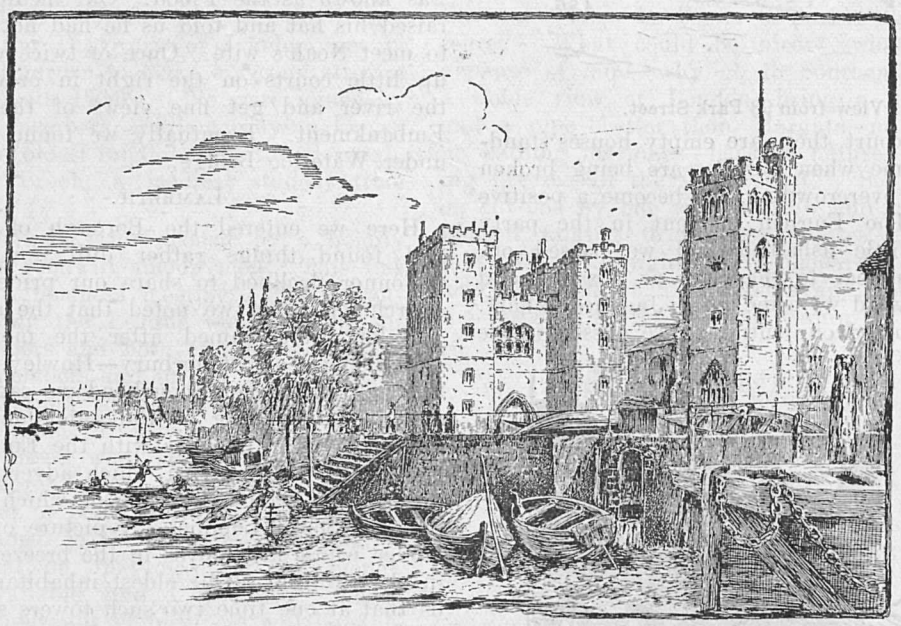
Pedlar's Acre.

The valuable site is really Pedlar's Acre, commemorated in Lambeth Church by a window showing a pedlar with his pack and dog. There are many stories about the origin of the name. One is that a pedlar asked that his dog might be buried in Lambeth Churchyard and, as a thankoffering for the favour, gave a

piece of land to the Church. Miss Ambler in her "Story of Lambeth," quotes the tale that a rich pedlar gave the land because in the days of his poverty the Church befriended him. Legends have surrounded the Lambeth pedlar for hundreds of years and we are not likely to discover the truth now.

Dissension.

So far our walk had been pleasant. No quarrel had taken place and the new members must have thought us rather nice companions. A cloud appeared when we crossed over Westminster Bridge Road to St. Thomas' Hospital —another fine building, set up in Lambeth between 1862 and 1870.



Lambeth Palace and St. Mary Church. Frontispiece to Miss S. O. Ambler's Story of Lambeth.

Speaking as a priest of the Church of St. Mary Overy (now the Cathedral), and so swelling with pride that I was almost visible, I made two statements which led to a long debate. In the language of the professional guide I said, "Here we have *our* hospital—probably the oldest foundation of the kind in London." Cheeseman and Clayton at a given signal said "Hear, Hear."

My first opponent was the Irish Roman Catholic. A discussion on these lines followed:

"It is not your hospital."

"It is; we at St. Mary Overy founded it."

"You have no right to say 'We.' *We* founded a hospital in Southwark and in 1228 called it the Hospital of St. Thomas of Canterbury. When Catholicism was almost crushed in England our hospital was closed."

"Catholicism was never crushed. The old church lasted on with certain important changes. You are under the false impression that you are the only Catholic."

"I'm not going to argue that with you, but it is self evident that the hospital is not the same. Even the name is different."

"That is of no importance. A woman's name is changed at marriage but she remains the same woman."

"Certainly, but a woman does not cease to exist for 13 years before her marriage. The old St. Thomas' was suppressed in 1540 and a new St. Thomas' came into being in 1553. This was a new hospital with a new name built in a new place. You have no case at all."

I was just going to play my trump card when the medical man took up his parable. The following argument then took place:

The Oldest Hospital.

"I am quite unable to enter into your ecclesiastical discussions but I object emphatically to your statement that St. Thomas' is probably

the oldest hospital in London. Have you never heard of Bart.'s?"

"I knew Bart.'s before you were born, my dear Brook, and all about it too. It was founded in 1123."

"And you have just said your hospital was named after St. Thomas the Martyr in 1228."

"Certainly it was, but it existed years before that. The point is that the Augustinians, the founders, arrived in Southwark in 1106 and founded a hospital which they called after Becket in 1228."

"Why didn't they call it after him when it was founded?"

"Because he was not born."

"I don't want any of your cleverness. You can't prove to me that your hospital was founded before 1123, and I can prove to you that Bart.'s belongs to that year."

"I only said 'probably' in my opening statement and you in your hot-headed stupid way provoked this discussion. My point is that the Augustinians were among other things a nursing Order and that in all probability when they rebuilt the Priory and Priory Church of St. Mary Overy in Southwark in 1106 they founded a hospital. This was removed from Southwark to Lambeth in the latter part of the 19th century. I am prepared to say no more. If you insist on sowing seeds of dissension you can have your 10/6 back."

"No, no," said the Treasurer, and so, fearing another debate, I let the matter drop, and we moved on towards Lambeth Palace in silence.

Our Destination.

At last we reached our destination. On arrival we entered the Church of St. Mary, Lambeth, to see the pedlar and his dog. Then we came out and surveyed the ancient church tower and the two towers of Lambeth Palace. The twin towers were built between 1486 and 1500 by Cardinal Morton. My companions had never been within the gate, so a little nervously I rang the bell. Feeling that I had been guilty of an impertinence I edged Clayson to the fore to take up my position at the back of the crowd. My good friend, Mr. Woodward, opened the door, raised his hat and looked at the new leader of the group. Somewhat nervously Clayson said: "We are the Southwark League for the Discovery of London." Ready for any emergency the gatekeeper rose to the occasion, raised his tall hat once more and said: "Gentlemen, you have made a mistake, for Bedlam, tram number 12 behind the church." Stepping forward I explained that we were a learned society in spite of appearances. I told him of a riverside walk and said we had only rung the bell in order to ask a little information. I asked him about the old story of a royal person who hid behind a tower here many years ago. "You mean Mary of Modena," said my friend, and I agreed. He then took us to the place to which Mary, wife of James II., hurried in disguise on a winter's night in 1688. She came from Westminster carrying what appeared to be a bundle of linen. In reality she was carrying her son, afterwards known as "The Old Pretender." After a long wait behind one of the towers a coach arrived and took the ill-fated pair to Gravesend, from whence they sailed for France.

It was getting late, but Mr. Woodward insisted on our visiting his quarters in the west tower and on taking us to see the east tower which was once a prison. In the walls, the rings remain to which men were chained in the bad old days. Then we all shook hands with our guide and prepared to withdraw.

The Treasurer whispered "Shall we make him a life member," and I answered "No." It seemed to me that three men ought to be able to dine for a guinea in these hard times.

T. P. S.

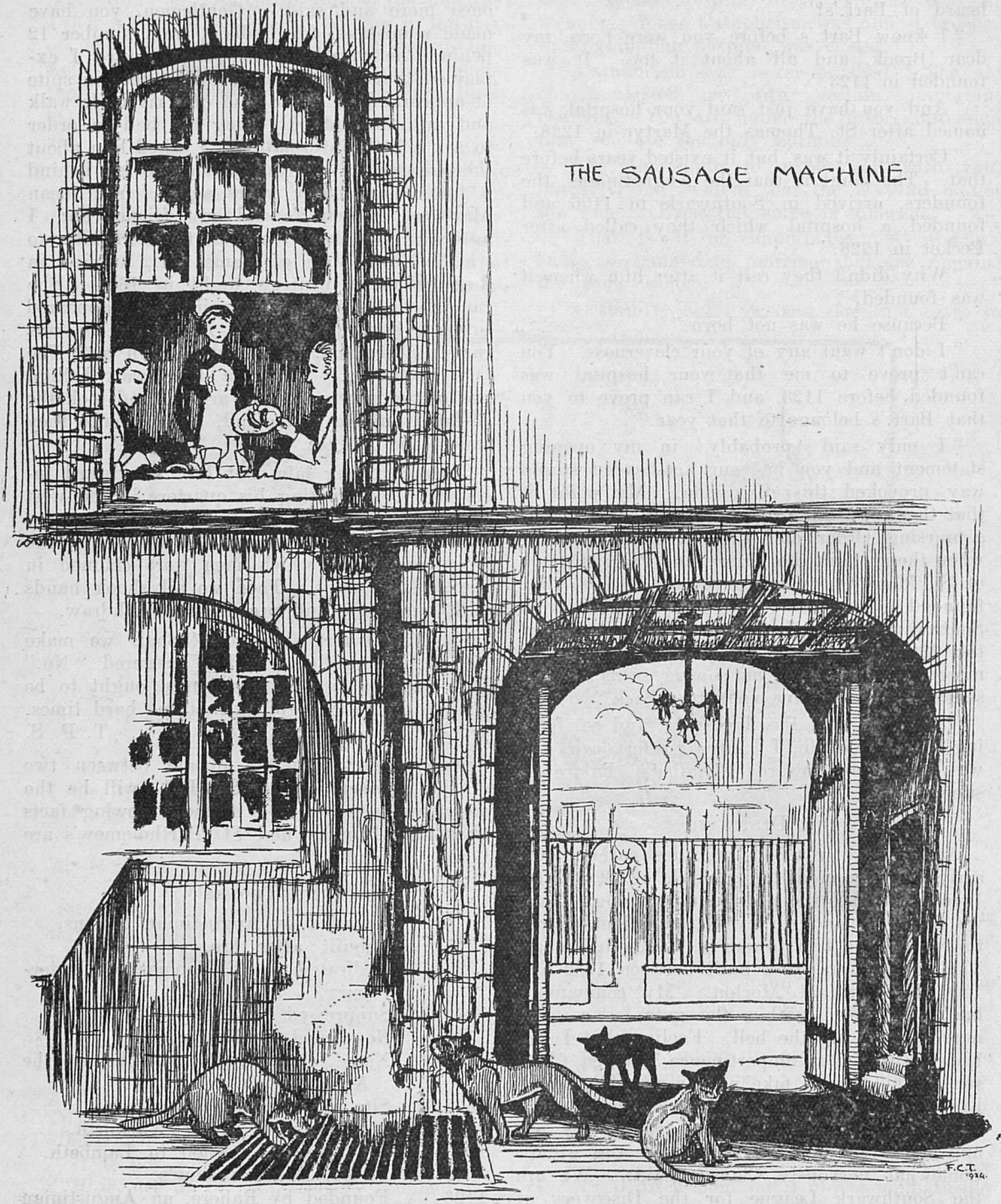
Note.—The incoherent debate between two of the members of the S.L.D.L. will be the more easily understood if the following facts about St. Thomas' and St. Bartholomew's are borne in mind.

St. Thomas'.

?	Founded by Augustinian Canons.
1215	Rebuilt after fire.
1228	Dedicated to St. Thomas of Canterbury.
1540	Suppressed by Henry VIII.
1553	Re-opened by Edward VI.
	Name changed to St. Thomas the Apostle.
1862	Site sold to railway company.
1860—70	Work carried on in Walworth.
1870	New hospital opened in Lambeth.

St. Bartholomew's.

1123	Founded by Rahere, an Augustinian Canon, on the present site.


THE SAUSAGE MACHINE
F.C.T. 1924.

Accounts in General Practice.

THESE few notes are intended to assist young qualified practitioners who have had no experience of the business side of running a practice and to give a general idea of a method to be adopted in ascertaining one's financial position at any time and for any given period.

It is surprising, but nevertheless true, that there are a number of practitioners who only keep a rough account of their transactions. Apparently their main object is to keep a fairly accurate record of the amounts due from patients, with little regard for the expenses that have been incurred in acquiring these fees. In these cases difficulties are bound to arise sooner or later and then an Accountant is called in only to find that he has to waste a great deal of time, which would otherwise have been avoided, had the books been kept in some systematic order.

In partnerships where the practice is extensive the responsibility of keeping the books is usually one of the duties of the dispenser or else, if a dispenser is not employed, a part-time clerk or book-keeper is engaged who periodically enters up the books and keeps them up to date.

On the other hand practitioners often prefer to keep their own books and where time permits this is a very good plan, as it not only saves expense, but by continual practice enables the doctor or dental surgeon to grasp the business side of the practice far better.

It sooner or later happens that the principal wishes to dispose of part of, or the whole of, his practice and if the books are not properly kept, difficulties at once arise when the purchaser wishes to investigate the books.

It is extraordinary how indifferent some practitioners are to keeping a complete record of petty cash receipts and payments. After all, the Petty Cash transactions should be treated just as methodically as the Private Ledger.

Time after time one hears that the receipts of a practice are really greater than they appear to be, as fees received from casual patients are not included in the accounts, but are used for sundry payments. Of course this does not help to increase the value of the practice as there is no record of these transactions.

One cannot possibly expect an accurate account of one's transactions during a given time unless all these items are shown in the books.

If some simple, but systematic method of book-keeping were adopted it would avoid the waste of a great deal of time and labour. Furthermore, it would greatly facilitate the work of the accountant in closing the books for a given period and when preparing the income and expenditure accounts and accounts for income tax.

The objects of keeping accounts may be summed up as follows:—

1. To ascertain the accounts due from patients.
2. To record all transactions with persons from whom purchases are made.
3. To show what profits are being realised in the practice.
4. To arrive at the result during a given period.
5. To ascertain whether the practitioner is solvent or insolvent—(if the former the amount of capital) and if the latter the amount of the deficiency.
6. To show a certifiable record of transactions over a given period for Income Tax purposes.

   (Certain lines are laid down by the Inland Revenue Authorities which must be strictly complied with.)

In general practice it is usual to assume that no profits are considered as earned until the cash has been received—this is quite different in a business house. Therefore it is safe to assume that all accounts in general practice are dealt with on what is called a "Cash Basis," and the principle books required are as follows:—

1. Cash Book.
2. Private Ledger.
3. Personal Ledger (for the accounts of patients only).
4. Petty Cash Book.

Cash Book.

This should contain all cash transactions and should be readily agreed with the Pass Book.

It should be a double ruled Cash Book, with numbered folios at the top corner of each page.

On the left should be entered all cash received—no matter whether it is from patients, panel or appointments.

On the right side enter all payments (usually by cheque) and the amounts drawn for petty cash purposes.

In each instance the following particulars

should be given:—date, the name of the person to whom you are indebted for the amount or by whom you are credited.

The Receipts side (or Debit side) should have columns for date, from whom received, folio of General Ledger, the amount and Bank Column.

The Payment side (or Credit side) should have the same columns with the exception of a Bank Column, plus additional cash columns to simplify the analysis of the payments.

Cheques drawn can be entered up from the Cheque Book. Petty Cash cheques drawn should be entered on this page and in addition on the debit side of the Petty Cash Book.

The Cash Book should be balanced, ruled off and the amounts posted to the respective accounts in the General Ledger. For preference and convenience this should be done monthly and agreed with the Bank Pass Book.

It may happen that the accounts do not agree for the reason that receipts or payments, although entered in the Cash Book have not passed the Bank and are therefore not in the Pass Book, in which case it will be necessary to prepare a reconciliation statement by the adding or deduction, as the case may be, of these items.

If there is still a discrepency, and assuming that the casting is correct, then it may be that there is a Bank charge or some Interest to be added to the Cash Book total—these will be shown in the Bank Pass Book.

The Private Ledger.

The following accounts should be opened:—

1. Capital Account.—To be credited with any amounts paid into and utilised in the practice, other than for fees and other business receipts.

It is also credited at the end of the year with any profits made during the year and will be debited with any private drawings during the same period, and any cash withdrawn from the business otherwise than for business purposes.

2. Private Drawings.—To be debited with all amounts withdrawn from the business for private use. At the end of the year this is transferred to the Capital Account.
3. Materials.
4. Drugs.
5. Repairs.
6. Printing and Stationery.
7. Wages.
8. Insurance.
9. Bank Charges.
10. Interest.
11. Rent.
12. Miscellaneous (Accountant's Fees, Postage, etc.).

The above are only suggested accounts and may be extended. In each case the above should be debited with the amount paid in respect of such account.

13. Stock.—The Stock in hand at the end of each year should be valued at cost price for balance sheet purposes.

14. Patients or Professional Fee Account.—This should be credited with all total amounts received from patients—these totals are transferred from the Cash Book at the end of each month.

Personal Ledger.

The accounts of patients should contain a detailed record of each transaction. In some practices the card index system is employed, but although useful in the sense that the cards can be arranged in alphabetical order, the method is not so reliable as there is always the possibility of the cards going astray, a loose leaf ledger is preferable as alphebetical order is maintained in book-form.

With the bound Ledger, however, it takes very little longer to look up a particular account, as an index is provided at the beginning, which should contain the folio of the account of each patient.

The simplest way of recording the transactions in strict chronological order would be to utilise a diary, both for the surgery and visits and for the amounts to be transferred to the respective accounts with the necessary details.

The diary will by this means serve also as a Day Book.

Petty Cash Book.

This need not be elaborate—an ordinary analysis book, obtainable from any Stationer, will answer the purpose, provided it contains the following rulings:—

Receipts Side.—Columns for date, details and double cash columns.

Payments Side.—Columns for date, details and about a dozen cash columns. The first of these columns would be used for the amount and the remainder for the analysis of the expenses under their respective headings.

The balance of the two sides should show the amount of Petty Cash in hand at any given date.

The columns should be totalled monthly and the amounts transferred to the debit side of the respective accounts.

BANK.

It is essential that all Cash receipts should be paid into the Bank intact and immediately after the details have been entered in the Cash Book. By this means the Bank Pass Book and Cash Book can all the more readily be agreed.

BAD DEBTS.

The collection of accounts which are long overdue is always a difficult proposition, but this will be dealt with in detail when the question of "Practices" is dealt with in another article.

Suffice to say that it is not satisfactory to simply put your pen through the account, but should be left to the Accountant to deal with, who will in due course transfer to the Bad Debts Account.

These bad debts are set against the profits of the practice, and are allowed as a charge for Income Tax purposes.

INCOME TAX.

Practitioners with no knowledge of the requirements of the Inland Revenue Authorities should ask a qualified Accountant to prepare their return. It very often happens that practitioners endeavour to fill in the return and invariably meet with difficulties in some form or other. It is therefore advisable to engage a qualified man, as it is well worth the fee apart from the peace of mind obtained.

If the books are well kept this is quite a straightforward job for the more experienced men and should present no trouble whatever.

CHEQUES.

Although it appears trivial, yet it is a matter of importance to emphasise the desirability of taking every precaution when filling in cheques.

Carelessness invites fraud, especially if the cheque gets into undesirable hands.

The following principles should be followed:—

1. Date.—Enter only the date upon which the cheque is actually drawn or made out.

2. Name of person to whom the cheque is payable should be boldly and clearly written. If the cheque is to be used for your own purposes—write "Self" or "Selves."

3. Amount should be clearly written in words and in figures at the bottom left hand corner. It is named twice to avoid uncertainty and although the Banker is bound by Law by the words, it is the practice to return cheques in which words and figures disagree.

Always cross a cheque where possible—with such words as six, seven, eight, and nine, which can be easily converted to sixty, seventy, eighty and ninety respectively, it is as well to write across the crossing "under ten pounds."

If, say, the cheque is for five pounds—do not leave the words at that, but insert the word "only" after pounds or else draw a line to avoid any other amount being added.

All alterations must be initialled, although some Banks demand the full signature.

4. At the bottom right hand corner the drawer will sign his usual signature.

5. Counterfoil.—On the counterfoil the following details should be entered, date, name of payee, details of payment, and the amount.

Receipts for payments made should be kept in the same order as the items appear on the payments side of the cash books, and tied up into bundles at the end of each year.

In conclusion it is advisable to point out the difference between a Statement of Receipts and Payments and an Income and Expenditure Account.

A Statement of Receipts and Payments is a classified summary of the cash actually received and paid as recorded in the Cash Book, for a stated period, opening and closing with the usual cash balance. The items may affect transactions of the preceeding and succeeding year to that actually covered by the account, so that beyond showing the magnitude of the cash transactions for that period it serves no useful purpose.

Such a statement must not be confused with an Income and Expenditure Account—which often includes items that have been neither received nor paid.

If all the income should have been received and all the expenditure paid in the form of cash during a given period the Receipts and Payments Account would of course truly represent and be identical with the Income and Expenditure Account.

The Income and Expenditure Account (otherwise known as a Profit and Loss Account) is a classified summary of profit and loss transactions showing on the credit side the entire income earned (whether actually received or not) and upon the debit side the expenses incurred in earning such income and otherwise chargeable to the period (whether actually paid or not).

The difference of the two sides represents the *net* profit or loss for the year.

Examples of the rulings required for the type of books mentioned in this article will be included in the next issue of the GAZETTE.

J. H. E. WINSTON.

"K-K-K-KELSEY."

Medicine in the Making.

Nature of Sleepy Sickness.

Research Work in Wards at Guy's Hospital.

[*We are grateful for the following article which appeared in the "Morning Post," August 9th*, 1924.]

SOME account was published a few weeks ago in the *Morning Post* of the research work that was being done at Guy's in the laboratories attached to the hospital at the time when the hospital started launching its appeal for funds. Research work of a different and even more tedious character is carried on daily and yearly in the wards, for in laboratory work it is often possible to bring a theory to the immediate test of experiment, whereas in the wards it is necessary to rely on observations that must often be extended over many years.

Sleepy sickness is a disease that is essentially of a smouldering character, and slight attacks of it may occur which escape observation and are attributed by the patients themselves and their relatives as having been a slight attack of influenza or a feverish cold.

While the disease causes difficulties in institutional treatment it is one that the hospitals cannot afford to neglect, more particularly because, though the belief is general that the disease is caused by a germ, the matter is not beyond dispute. To try and throw light on this obscure point is one of the objects at which the hospital aims, while another, more important for immediate sufferers, is to study their symptoms from time to time in order to effect a cure.

Disseminated Sclerosis.

The disease of the spinal cord, resulting in paralysis and other symptoms, is another mysterious disease which is being closely investigated in the wards at Guy's. The physicians are coming more and more to the conclusion that it is a chronic infection. During the last ten years a considerable amount of bacteriological research has been done on it, and more than one observer has claimed to discover a *spirochæte*, a class of organism responsible for a number of diseases, and the opinion still grows that it is a chronic infection. The general idea of the treatment is to try the effect of known poisons that attack the single-celled organisms known as the *protozoa*. A good deal of work has been done on these lines at Guy's. Salvarsan has been tried, and antimony that produced recently brilliantly striking results with *Bilharzia* and *Kala-Azar*. Trial is being made also of the drugs that are of proved value in *trypanosomiasis*, but it will be necessary to carry on observations for about ten years at least, as it would be dangerous in the extreme to set people on the wrong track. This statement explains the extraordinary patience required in clinical research.

Diagnosis and the Spinal Cord.

In many instances it becomes of the utmost importance to make certain whether the spinal cord is or is not being subjected to compression and to know exactly the situation at which such compression, if present, has occurred. A new method that it is hoped may increase the accuracy of diagnosis is to inject into the cavity which holds the spinal cord a substance known as Lipiodol. If there is no compression the Lipiodol will trickle to the base of the spinal canal, but if the canal is blocked it will be arrested on it way down and its presence will be rendered visible by means of the X-rays. There is much here, again, that needs elucidation.

In cases of mental breakdown American hospitals are far in advance of the British, for they have avoided any stigma attaching to the conditions. At the Johns Hopkins, for instance, there are special wards for mental cases, and when the patient is discharged it is a hospital he has left and not an asylum. Unhappily in the asylums the patients often arrive in a hopeless state. In the general hospitals treatable patients come to the out-patients' department, but there are no wards to which they can be admitted. Some advance was made when Maudsley established an institution of the kind for early cases of mental disease, but it is questionable whether the money might not have been better spent in establishing mental wards in the general hospitals. The idea of opening such a ward at Guy's is being very strenuously advocated by members of the staff, and should the appeal succeed a new and powerful lever will be placed in their hands to bring about this pioneer reform.

Reviews.

General.

Crime and Insanity. By W. C. Sullivan, M.D. (London), Medical Superintendent, Broadmoor Criminal Lunatic Asylum. Published by Messrs. Edward Arnold & Co. pp. vii. + 259. *Price* 12*s*. 6*d*. *net*.

ALTHOUGH there is a tendency at the present time towards a more rational point of view, a large section of the community still regard with some apprehension the appearance of a doctor in the witness box, during the trial of a criminal case; more especially is this the case when some "cause célèbre" is the occasion; and, doubtless, there is a certain measure of justification for this apprehension. The inherent tendency of our race is to regard crime more from a moral than a social point of view. The punishment of crime is carried out with three main objects, (1) retribution, (2) as a deterrent, (3) reformation. The second of these is the most important, since the penalty is inflicted by society as a means of self-protection, rather than as correction for an offence against the moral code. Herein lies the failure of the lay mind to grasp the signifi-

cance of insanity in its relation to criminal acts. Purification by suffering is still a widely held doctrine and reflects the vulgar attitude towards crime as a moral rather than a social transgression. Not until a complete realisation of this primary factor in the legal aspect of crime and its punishment has become disseminated can the community hope to grasp the principles governing the treatment of criminals found to be insane.

Doubtless another fact which leads to some misunderstanding in the public mind is that, almost invariably, when a criminal found guilty on the capital charge appeals on the grounds of insanity, the medical witnesses are retained by the defence. It appears, and naturally, to the lay mind that such evidence is, of necessity, biassed, and that the criminal is sheltered behind a shadowy, but effective plea, amplified by "ex parte" witnesses, whose specialised knowledge renders their statements difficult of refutation. It would, therefore, be to the undoubted advantage of all concerned, if such evidence could be presented by alienists having no connection whatever with either defence or prosecution, but who could express an unbiassed opinion, based on the history and clinical manifestations of the accused person. In this way would the authority of the law be maintained, and all doubt as to the impartiality of its administration removed from the public mind.

Dr. Sullivan, who has had unique opportunities of studying his subject, has presented the medico-legal aspect of crime in a clear and concise manner. By approaching his subject from a clinical rather than from a legal point of view, that is, by dealing with the types of crime associated with certain insanities, rather than with certain insanities associated with the several types of crime, he has given a fascinatingly human account, easily understandable even to the technically uninstructed.

"Crime and Insanity" is, therefore, a book to be read with interest by both the medical practitioner and the layman, and will help to clear away much of the doubt and mystery surrounding this subject.

Dr. Sullivan's commentary and personal views on the McNaughten rules are of absorbing interest, and for the student, should present in a new and more interesting light an otherwise dull subject.

Massage of the Head, Face and Neck. By OLIVE F. SANDS. Published by the Scientific Press Ltd. pp. vii. + 62. *Price* 1*s.* 3*d. net.*

THIS little book is well-written by a mistress of her subject. It is concise, easy to read, and should prove invaluable to students of massage. There is an excellent chapter on the treatment of Torticollis, congenital and acquired.

Diseases of Women.—By TEN TEACHERS. Third Edition. Published by Messrs. Edward Arnold & Co. *Price* 24*s. net.*

IN the third edition of this well-known text-book on "Diseases of Women," the Editors have brought the text thoroughly up to date by minor alterations without finding it necessary to carry out any extensive revision.

For examination purposes the advantage of a text-book compiled by Ten Teachers who have nearly all had some experience of examining is quite obvious. But it will also be found of great value afterwards for purposes of reference, when the student has become a practitioner.

The book is fully illustrated and has eight excellent coloured plates.

Dental.

Oral Hygiene. By J. SIM WALLACE, D.Sc., M.D., L.D.S. Published by Messrs. Bailliere, Tindall Cox. 76 Pages. *Price* 5*s.*

IT must not be inferred from its title that this book is only for the use of dentists, rather it is for the layman and the doctor; we rather suspect, however, that Dr. Sim Wallace would consider its work done if it were only read by a few of our leading physiologists at whom it seems to be directed. The work is short, of large print and easily readable in an hour and a half; it is well worth the trouble even if it is only to watch the great refute the theories of the great!

The author first deals with the function of the oral secretions. The text-books of physiology give as the function of saliva firstly and chiefly—the first stage in the digestion of starch, secondly—and dubiously—the cleansing of the teeth. This he declares is a preposterous arrangement, showing that the mucous and saliva are mainly concerned in the maintenance of cleanliness in the mouth. He points out that ptyalin has no action on uncooked starch and yet it is profusely secreted by animals; further the time honoured theory of the bolus of food continuing an alkaline digestion in the acid stomach must go by the board, for the natural condition of food being swallowed is almost liquid.

Chapter II., an attack on the theory that lack of vitamines is the cause of dental hypoplasia, ridicules the experiments of Professor and Mrs. Mellanby. We are shown that Professor Mellanby treated his puppies after the hypoplastic portions of the teeth had already been formed, and that the condition of their calcification actually improved under his "no vitamine diet!" Fat soluble A is honourably acquitted; it is responsible for hypoplasia in one tooth in ten thousand and for caries in one tooth in a hundred thousand! The chapter concludes by a piece of advice which may be considered typical—"the sooner those who belabour 'the importance of the infinitely little' learn to appreciate some sense of proportion the better for the rising generation."

There follows some essentially practical remarks on the futility of modern foods. Not only does cellulose, a factor which is inclined to be omitted, mechanically clean the teeth, but it stimulates the liberation of phagocytes, or salivary corpuscles, by irritation of the gingival tissues. The consumption of sticky foods, such as pastry is nothing but "the cultivation of bacteria in the mouth." Further we are asked to compare the actions of liquids taken with food with liquids taken after food.

The Committee appointed by the Medical Research Council to investigate caries have, we learn, directed their researches in the wrong paths. They look within the tooth, its structure and calcification, to find a *cause* for decay, whereas Dr. Sim Wallace points out that this *cause* is already known and is found outside the tooth in food stagnation in corners and crevices of the tooth surface.

The book is a criticism of the work of physiologists in oral hyigiene and an exhortation to them to turn their labours to a more practical end.

Surgery.

On the Breast. By DUNCAN C. L. FITZWILLIAMS, F.R.C.S. Royal 8vo., 456 p.p., 166 Illustrations and Plates. Published by Messrs. William Heinemann (Medical Books), Ltd., 1924. *Price* 30*s. net.*

THIS volume contains an extensive discourse upon the various pathological conditions to which the breast is liable. That their number is legion and the importance which is attached to these conditions may be inferred from the size of the volume.

The first chapters deal with the anatomy of the breast, its development and the congenital abnormalities which have occurred in connection with it. Then infections, tubercle, syphilis, etc., cysts, new growths, innocent and malignant, are dealt with chapter by chapter. A chapter entitled " Hysterical Breast," is not very convincing. Most breast cases are associated with a certain degree of hysteria, and it seems rather a dangerous thing to teach a diagnosis of hysterical breast.

Six chapters are devoted to the discussion of the *most important lesion, i.e., carcinoma of the breast.*

The writer follows Sir Lenthal Cheatle's views on the origin and spread of carcinoma and is rather inclined to ridicule Sampson-Handley's permeation theory, but on the whole the various theories are fairly discussed and treated.

The writer lays great stress on the early diagnosis of cancer and advocates cutting down upon all tumours in the breast, however small, if there is the slightest suspicion of malignancy. The microscope will always clear up the diagnosis.

The last few chapters are concerned with prognosis, Pagets disease and deep X-ray therapy. We can recommend this book as containing many interesting and instructive chapters. From the Student's point of view the chapters on tumours, especially those on malignant tumours, are well worth reading. For the remainder the system of case reports throughout the book and the extensive field which it covers sufficient to maintain interest.

Medicine.

A Medical Guide to the Principal British Spas and Climatic Health Resorts. Published by Messrs. J. & A. Churchill. *Price* 1*s. net.*

THIS book makes interesting reading and contains a great amount of valuable information about the health resorts of our own country. Following upon a general discourse on Spa treatment there is a list of places, alphabetically arranged, each place being subject to the same method of description. Thus:—

" Folkestone (Kent).—70 miles from London (about 80 minutes). A marine health resort and residential town, on the projecting cliffs overhanging the English Channel. Town is sheltered by the high chalk downs to the north and east, and there are pleasant sheltered walks on the undercliff. Aspect south and south-east. The soil is dry and porous, the elevation varies from 20 to 190 feet above sea level.

Climate bracing and fairly dry, cold in the spring. On an average for 10 years: rainfall 29in., sunshine 1722 hours, mean temperature 50·4°, land mists and fogs rare. Prevailing winds westerly and south-westerly.

Recommended for most scrofulous and chronic tuberculous diseases, for convalescence after illness or operation, for anæmia and general debility, and for subacute bronchial catarrh in summer and early part of winter."

The guide is liberally supplied with illustrations, and is well printed.

Literary Intelligence.

THE following new books and new editions are in the press, and will shortly be issued by Messrs. J. & A. Churchill:—

Recent Advances in Medicine: Clinical, Laboratory and Therapeutic. By G. E. BEAUMONT, M.D., Lecturer in Practical Medicine, Middlesex Hospital Medical School, and E. C. DODDS, M.B., Chemical Pathologist and Lecturer in Bio-Chemistry, Bland-Sutton Institute, Middlesex Hospital. 37 Illustrations.

Refraction of the Eye including Physiological Optics. By C. B. GOULDEN, O.B.E., M.D., F.R.C.S., Ophthalmic Surgeon, London Hospital, Surgeon Royal oLndon Ophthalmic Hospital. 180 Illustrations.

The Examination of Waters and Water Supplies. By JOHN C. THRESH, D.Sc. New (3rd) Edition. Illustrated.

Quantitative Organic Micro-Analysis. A comprehensive Treatise on the Quantitative Analysis, both Elementary and Proximate, of very small quantities of organic materials. By F. PREGL, D.Sc., Ph.D. Translated by E. FYLEMAN, B.Sc., Ph.D., F.I.C. 42 Illustrations.

Elementary Physics. By G. STEAD, Demonstrator in Physics, Guy's Hospital and Cambridge University. 188 Illustrations.

Qualitative and Volumetric Chemical Analysis, for Medical, First Year University Science Students and Students of Technical and Pharmaceutical Schools. By W. CALDWELL, Professor of Chemistry, Royal College of Surgeons in Ireland. Introduction by C. S. GIBSON, O.B.E., M.A., M.Sc. Illustrated.

Volumetric Analysis. By FRANCIS SUTTON, F.I.C., F.C.S. New (11th) Edition Revised Throughout by W. LINCOLNE SUTTON, F.I.C., and ALFRED E. JOHNSON, B.Sc., F.I.C., A.R.C.Sc.I.

Materia Medica. By PROF. HENRY G. GREENISH, F.I.C., F.L.S. New (4th) Edition. 250 Illustrations.

Publications Received.

Indian Medical Gazette, The Medical Review, The Irish Journal of Medical Science, The Hospital Gazette, The Nursing Times, British Medical Journal, Indian Medical Record, South African Medical Record, Long Island Medical Journal, The Medico Surgical Journal of Tropics, Annual Report of the London and Counties Medical Protection Society, Calendar of International Federation of Students, University College Hospital Magazine, Catalogue of Lewis's Circulating Library, The St. Thomas's Hospital Gazette, The Medical Journal of South Africa.

Sport.

Cricket.

Guy's v. Old Whitgiftians.

THIS game was played at Honor Oak Park and provided one of the most thrilling games of the year. Our opponents won the toss and batted first on a very dead wicket, which afforded little or no assistance to our bowlers. The opening batsmen started very carefully, but when 12 was on the board, Van Schalkwijk clean bowled H. T. Groom, He was followed by one of the School bats, Pearce, and he and Pegg defied the bowling for nearly an hour until Pegg was brilliantly caught at square leg by Fellowes-Smith. Without any addition to the score the next man was caught by Fellowes-Smith by an even finer catch, for he had to run a long way and then got to the ball with his left hand. The score then mounted very slowly to 181. A slow drizzle was falling all the time and made it very difficult for the bowlers to hold the ball.

At six o'clock the Hospital started their innings, with only 1½ hours in which to make the runs. It was decided to go all out for victory and to that end the men capable of making runs fast were sent in first. However, when three runs had been scored Durr was caught in the deep field, but Droomer continued to smite lustily. Then Shaw came in and associated with Droomer first and Van Schalkwijk later, played a faultless and sparkling innings of 87, which included 13 fours and one 6. In spite of this 6 wickets were down for 125. When Fellowes-Smith joined Van Schalkwijk, who up to now had been content to let Shaw make the runs. These two proceeded to go for the bowling and our opponents' total was easily passed. Van Schalkwijk played an excellent innings, and Fellowes-Smith demonstrated how to score 40 runs in 20 minutes. He hit 7 fours and one 6, without giving a chance. It was a splendid win, for the time seemed too short to knock off 181 runs.

SCORES.

Old Whitgiftians.

C. Pegg, c Fellowes-Smith, b Durr	43
H. T. Groom, b Van Schalkwijk	3
G. O. Pearce, b Van Schalkwijk	42
F. Savage, c Fellowes-Smith, b Durr	0
G. H. Phillips, b Van Schalkwijk	10
G. W. Scott, c Meissner, b Durr	31
G. A. R. Williamson, b Durr	21
W. H. Pearce, not out	8
M. C. Butterworth, c Calder, b Van Schalkwijk	0
P. V. Markham, c Hewetson, b Van Schalkwijk	13
A. N. Other, b Van Schalkwijk	3
Extras	7
Total	181

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk...	19	4	80	6
J. Durr	17	4	68	4
D. Calder	5	0	17	0
G. Fellowes-Smith ...	4	0	9	0

Guy's.

J. Durr, c Groom, b Butterworth	0
P. Droomer, b Pearce	29
D. Calder, b Butterworth	7
G. D. Shaw, c Markham, b Groom	87
A. G. Ensor, c Markham, b Pearce	0
L. S. Williams, c Williamson, b Pearce	4
J. G. Van Schalkwijk, not out	49
G. Fellowes-Smith, not out	40
Extras	6
Total (for 6 wickets)	222

J. Hewetson, V. Estment, and W. Meissner did not bat.

1st XI. v. Cane Hill.

Played at Cane Hill, on Saturday, August 2nd.

GUY'S won the toss and elected to bat on a good wicket. Williams and Ensor went out to open the innings and after making 5, Williams played across a straight ball on the leg stump and was bowled. Kendle followed, and by dint of careful, but forcing cricket, the two batsmen carried the score to 109, when Ensor was bowled. Unfortunately he was but one short of the half century. Van Schalkwijk then arrived and hit 49 runs in about half an hour. The remaining batsmen went for the bowling as time was getting short, and at tea time Guy's had compiled the respectable score of 206.

Cane Hill opened very carefully and only scored about twenty runs in just under the hour. Then a hitter was sent in and with mighty drives the score was raised to 50 in a few minutes. Then another wicket fell, and not to be outdone the rain fell—in torrents. The pitch was soon flooded and further play was impossible. The match was left in a very interesting position, for Cane Hill only needed 156 runs to win and had plenty of time in which to make them.

SCORES.

Guy's.

L. S. Williams, b Fish	5
A. G. Ensor, b Fish	49
C. Kendle, c Morgan, b Cotton	73
J. G. Van Schalkwijk, b Cotton	49
P. D. B. Spence, c Cotton, b Cook	2
J. Durr, b Cook	0
G. Fellowes-Smith, c Cotton, b Cook	0
J. C. Hewetson, c Bellis, b Cotton	8
V. Preen, b Cotton	4
D. Calder, not out	8
Total (for 9 declared) ...	206

V. Estment did not bat.

Cane Hill, 50 for 2 wickets.

Guy's v. Bexley Mental Hospital.

GUY'S went down on Saturday, August 16th, to play the annual fixture against Bexley. Dr. Hancock, an old Guy's man, and skipper of the Cricket Club at Bexley won the toss and decided to bat first on a good wicket. Runs came quickly from the start, but at 16 Dr. Hancock was run out by a smart return from Ensor, in attempting to run a very short one. The next wicket fell at 25, but when Pepler and Luan became associated they put on 122 runs. All our bowlers were tried but the defence of both batsmen was too solid and they looked as if they might stay all day. However, Van Schalkwijk resumed bowling from the other end and immediately met with a success in dismissing Pepler. He had played very well for 77, although he was let off once behind the wicket when only 22. Shaw then was put on to bowl, and by keeping an excellent length disposed of the last four batsmen. The innings totalled 211, and after tea we were left only 2¼ hours in which to make the runs.

Couch and Ensor opened for the Hospital and were associated in an excellent first wicket partnership of 46 runs. The second wicket fell at 53 and the third at 74. Then Shaw and Van Schalkwijk again appeared in the roles of saviours of their side. They hit the bowling everywhere and never looked in difficulties until Shaw was bowled after compiling an excellent 67. Durr joined the Skipper, and using his eagle eye and mighty arms with great accuracy, smote thirty runs in a quarter of an hour. Van Schalkwijk was still in, playing delightful cricket, and when the score was 209 for 6 was joined by Hewetson. Together they passed the Bexley total with 20 minutes to go. The total eventually reached 271 for 8, when stumps were pulled up. Van Schalkwijk played a brilliant knock for his 70 not out.

SCORES.

Bexley 211. Pepler 77, Luan 44.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk...	24	1	90	4
JJ. Durr	20	5	43	1
G. Fellowes-Smith ...	6	2	9	0
D. Calder	5	1	12	0
L. S. Williams	3	1	8	0
G. D. Shaw	7	3	15	4

Guy's.

D. H. Couch, c Simmons, b Pepler	21
A. G. Ensor, c Hammond, b Lennox	22
L. S. Williams, b Pepler	1
G. D. Shaw, b Williams	67
J. G. Van Schalkwijk, not out	70
J. Durr, c Lennox, b Williams	30
G. Fellowes-Smith, b Lennox	0
S. R. Trick, b Williams	0
J. Hewetson, b Williams	19
D. Calder, not out	4
Extras	33
Total (for 8 wickets)	271

Water Polo.

ON Wednesday, August 14th, the Swimming Club sought to enhance the reputation of the Water Polo Teams in the South, and having received a cordial invitation to take part in the Sandown Regatta, the Team journeyed to the Isle of Wight on Tuesday evening.

Our Manager, Mr. L. Brown, had gone on in advance to book rooms, and to generally advertise the arrival of the minor portion of the Team, which included the other six. By the time we arrived the reputation of the Hospital Team was so well established, that sleepless nights were spent visualising our failure to survive the first round.

On Wednesday morning, we met a team of Sandown visitors, who included many would-be internationals. There was a strong cross-current and the temperature of the water was none too high, the pitch being alongside the Pier. We beat our opponents in speed, although they had the advantage of having previously played in the sea, in which our Team realised the futility of many manœuvres that would have taken effect had we been playing in Baths. The score was finally 3—0 in our favour (Simons 1, Theis 2). This somewhat revived our cyanosed men, who repaired for lunch. In the afternoon the Hon. Sec. beguiled the innocent Handicapper and just won the 100 yards handicap.

Our next appearance was due at 4.30 p.m., but living true to the fable that very few sailors acquire aquatic efficiency, H.M. Ships were unable to raise a team. Thus, three teams were left in the semi-final, one of whom had not played before. It was decided that the Engineers and ourselves should toss for the privilege of playing twice. Our gallant Captain, John Simons, borrowed a coin, and with a manipulative dexterity that quite deceived those unacquainted with him, won the toss.

We met the Engineers in the Final, and owing to our superior combination we pulled off the game 3—1 (Brown, Simons, Theis). Stephenson played well in goal, Dingle and Marsh were sound at back, and Simons played his usual energetic game. Brown was inclined to try too many "long shots," but marked well. We were well supported by Dr. Jewell and his party, who cheered us on from a launch.

In the evening we had to attend the Prize Giving. This was carried out in the usual manner. The Chairman opened the proceedings—"I shall not keep you here for long." The crowd rocked with laughter at this sally. Having commented on the success of the Regatta from all points of view, the Prizes were distributed. A short speech by the Chairman on the sportsmanship of the Hospital in bringing down their talented team, brought blushes of modesty to many. A confetti fight lasted until midnight, and some returned weary with exertion. A moonlight swim, with seductive music floating over the placid waves completed a splendid day. At six the next morning, we stole from our rooms, and crept silently away.

Correspondence.

A History.

DEAR SIR,—The enclosed note was handed to me by a patient of mine, a Chinese of the educated class, who was suffering from tubercular ulceration of the pharynx.

Its quaint phrasing and vivid description may amuse your readers, if it fails to throw any light on this disease.—Yours faithfully,

A. G. MILLOTT SEVERN.

Sanitary Department, Hongkong.
July 14th, 1924.

Dear Sir,

Many thanks for you to take care to cure my this kind disease.

As my throat, which was caught by a devil disease, had been suffered about ten months ago. First it diseased like a small corn in my throat. Now it is spreading full of dirty things in my mouth, unless I cannot eat anything, when I ate something it made me to suffer a painful. And the spit which flows out from my mouth is a bad smell and contains some bloods in the spit. When the night is coming, I am becoming very tire and very fond of sleeping.

Hospital Information, etc.

Change of Address.

A. G. M. Severn, M.D., Sanitary Department, Hong Kong.

Philip Scott, L.D.S., 24, Park Crescent, Portland Place, W.1. (Tele. Mayfair 5466).

Papers by Guy's Men.

R. Davies-Colley, C.M.G., M.Ch., F.R.C.S. Tuberculous Cervical Glands.—*B.M.J.*, 1924, No. 3320, p. 259.

C. de W. Gibb, M.R.C.S., L.R.C.P. The Drainage of the Peritoneal Cavity.—*South African Medical Record*, 1924, Vol. xxii., No. 13, p. 306.

H. F. Bell Walker, M.D.(Lond.). The Beginnings of Disease. (Read before S. A. Medical Congress) —*Ibid*, p. 302.

Specialities.

"Silver Shred" Lemon Marmalade.

Messrs. James Robertson & Sons, Limited,
Golden Shred Works, London, S.E.6.
(Also at Paisley, Manchester and Bristol.)

THE valuable health-giving properties of the lemon are more fully appreciated to-day by medical men than ever before, because of its tonic action on the appetite and its aid to digestion. Equally important, however, and especially so in spring and summer, is its well-marked effect in keeping the blood pure and healthy. So thorough, indeed, is this purifying action that considerable benefit has been derived, not only in most cases of ordinary blood impurities, but even where the trouble is more deep-seated, as, for example, in rheumatism.

The lemon, of course, is especially rich in "C" vitamin; and in this connection it is of interest to note that, while this factor in foods is generally destroyed by heat, lemon juice can be heated above 100°C. with no appreciable loss, and may be heated to still higher temperature without losing this important food factor.

These facts lend considerable interest to "Silver Shred," the lemon marmalade. As in the case of "Golden Shred" Marmalade (orange), the indigestible pith is removed. These marmalades, therefore, while containing the full food value of the lemon (or orange) are ideal alike for the invalid, the child and the robust adult.

Death.

BIDDLE.—On August 17th, 1924, at Buxton, Mrs. Eric Biddle (née Rita Sutton).

Guy's Hospital Gazette.

(Established 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The Gazette Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the Gazette can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—The Counting House, Guy's Hospital, London, S.E.1.

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *September 13th, 1924.* *Number 944*

PASSIM

AMONG the eminent persons, whose words have deeply and constantly affected our entire life, must be numbered the Editorial grandmother. Most benevolent and placid of ladies, she avoided the buffetings of life's stormy seas by casting anchor at the first flush of dawn in the peaceful backwater of Hackney Wick. Here she passed her blameless life, surrounded by a model husband and several models of wax fruit. Only rarely was she vexed or put out, those times, by some curious coincidence, corresponding with our visits and then she would give vent to the historic words, which form the motto over our desk. The maid would announce us hesitatingly, "Please, mum, it's Master Lionel," and our grandmother would reply, "Oh well, there's always something." When we die and Saint Peter has answered the bell to find it's only Master Lionel, our successor will find these words still adorning the walls of his office, "There's always something." It is the ladylike phrase for the crude military definition that life is just one darn thing after another, but for us, the writer of "Passim," it has a more encouraging meaning. It seems to say, "Don't give up. Take your stylographic pen and begin to write. There's always something." True, that "something" is usually a murder, or a suicide, or a death-pact or a hanging, but it is always there, and anyhow this time there really is something.

When the medical statistics for Europe and America and the Antipodes and the tops of mountains come to be compiled, it will be found that the last four weeks have seen more cases of cervical myositis and torticollis than have ever occurred before. Even at Margate men have been observed pointing to the sky and saying, "That's it; that big bright one there," while their clinging consorts have replied ecstatically, "Oo, isn't it pretty?" For there has, indeed, been something; there has been Mars. The general interest in this coquettish planet was not wanting in the Borough, where star-gazers are many, and a personal acquaintance with one of the foremost Martian authorities, happily for many years now a member of the Hospital, roused even the editorial staff to active astronomy. It was while gaxing fixedly at the arc-light of a distant wharf, that a quiet-voiced old gentleman ranged himself alongside of us and said, in the confident voice of one, who has a congenial topic of mutual interest to discuss, "And what is the lunar house of the planet to-night?" These questions are so dreadfully difficult to answer on the spur of the moment that we hesitated while he continued in his friendly way, "You are conversant with the signs of the Zodiac?" "Oh, yes, indeed," we said, glad to be on safe ground once more; "Thirty days hath September, April, June and November." We could have gone on to the very end this time, including leap-year, but he would have none of it and corrected us mildly but firmly. "This is the month of Capricornus or the he-goat," he said. "Ages before Assur-bani-pal reigned at Nineveh the tenth month, or Tebet, was known as the star

of the goat." This was hard language for a September evening and we edged away. We admired the old man for his simple faith in Assur-bani-pal, but felt out of sympathy with the he-goat. Why should a month, which has inspired more poets than was strictly necessary, be dedicated to an animal, which receives but a minor notice in the very biggest dairy show? It was not right; it was heathen; it smacked of Nineveh and Tyre. And so we were led on to evolve a new sign for September and this was it. On a cloudy field, an anchor, garlanded with hops and surrounded by three R's rampant. There is an epitome of an English September. The field requires no explanation. It forms a background of bright September clouds for the shining anchor of rustless steel. The idea of the anchor—the everlasting symbol of hope—we borrowed from the local vicar. He had just returned from his annual vacation, and looked out from the folds of his surplice, brown and beaming. His church was not filled, but those of his flock, who sat at his feet, were imbued with the true Christian spirit of fortitude and duty. They had fought their way from comfortable homes through the driving rain and, still wet and shivering, rose in a body to sing the opening hymn, "Every morning the red sun rises warm and bright." When that hymn was announced, we knew instinctively that the sign for September was the emblem of hope. The August holidays are, no doubt, largely responsible. Fortified by that wonderful "change of air" and absence of work, the workaday world seems an easier and a better place, and even students on the eve of the second Conjoint face the future with scarcely a tremor. One, who, when asked to name the relations of the œsophagus, replied that he thought they were all dead, is as hopeful as the Vicar. It is a wonderful month! The garland of hops is, perhaps, of rather local significance, but in the Borough, September is synonymous with hopping. Off they go in their thousands at the first call from the hop-fields, and those left behind do men's work drinking beer, knowing full well that each pint consumed is a donation to the Kentish Fresh Air Fund for Children. As for the R's, they should be emblazoned in the deepest black, for murder is rife in the fields, and on the moors, and at Whitstable, and Leadenhall Market is overstocked.

To Islington, then, with he-goats and all other abominations. We will cling to the new and beautiful sign of hope and hops, and if at times the earthquakes and cloud-bursts tend to cause a local depression over the south of London, we will be brave and smile and let them burst, for after all "there's always something."

▭

Bermondsey, hitherto not considered a strong rival by Broadway, or even by the Milky Way, is shortly to challenge the scintillating supremacy of both. Its Medical Officers have evolved a new plan for instilling the elements of cleanliness and hygiene into the minds of the Old Kent Road. Electric signs are to be raised, flashing out over the deadly nightshade of ill-lit streets the value of the toothbrush. This is an innovation that might well be extended to the walls of the Hospital itself. All doubt, if not all hope, would be quickly abandoned by the victim of a carious molar, if on walking towards the Dental Department he suddenly had flashed before his eyes "When in doubt, have it out."

▭

Followers of Rugby Football have been reading the results of the British team's matches in South Africa with resigned sorrow. Bad luck has dogged its footsteps and casualties have weakened its ranks. It has lost the first two test matches, and Britain grieves, but at Guy's there are secret chuckles and a quiet air of understanding. For on each occasion the captain of the South African team has been P. K. Albertijn, who raised Guy's Rugger to such a height in 1922—23. He is acknowledged in South Africa as one of the finest inside-threes that the country has ever seen, and we are proud to think that it is a Guy's man who is beating the home-country.

▭

We have it on very good authority that steps are being taken to paint the ward balconies overlooking the front quadrangle. Some months ago a petition for painters went out from at least one ward, and it is now hoped that after their summer vacation their hearts will be softened, and, weather permitting, they will finish in the autumn the spring-cleaning begun in the summer.

American Notes after a Visit to the Mayo Clinic.

By A. NORMAN LEEMING, M.B. Lond., B.S. of Colwyn, North Wales.

EVERY Guy's man, who can, should visit the Mayo Clinic at Rochester, Minnesota, North America. He will receive a warm welcome and will return with a fresh inspiration and outlook for his own work. The writer travelled outward via New York, Baltimore, Washington and Chicago to Rochester, and homewards via Chicago, Niagara Falls, Toronto, Lake Ontario, Thousand Islands, Montreal and Quebec; in this way a glimpse of Canada was taken and the journey is full of variety. The whole journey took two days less than seven weeks, of which 16 days were spent at the Mayo Clinic.

It is advisable to avoid the summer heat and the winter cold.

The Mayo Clinic has a staff of about 125 full time medical men, and of these twelve are general surgeons. Each surgeon has six assistants, who work for three years. The Clinic deals with about 2,000 cases weekly and all patients pay private fees which are graded by their capacity to pay.

The operative work is rapidly done but absolutely thoroughly, and the team work is very good because the members work so long together and the assistants are all qualified men of first-class stamp. Much time is saved by running two theatres for each firm and by the assistants opening and closing the abdomen, which sets the operator free for his next operation quickly.

Gastro-Intestinal Tract.

Some idea of the wealth of clinical material at the Mayo Clinic may be gathered from the paper on gall-bladder disease published there recently, in which ten thousand consecutive cases of cholecystectomy were reviewed. As will be seen from the daily list of operations, gall bladder trouble is extremely common in America, at any rate a lot of it finds its way to the Mayo Clinic. Out of the 10,000 gall bladders removed, 42 had malignant disease. This comparatively small number, to me, disposed of the argument in favour of removal versus drainage, but the ease and safety of removal nowadays appears in most cases entirely to outweigh any objection to it on the ground of it being a much more serious operation than simple drainage. The slight increase of risk is well compensated by the future freedom from gall-bladder trouble.

Incidentally the gall bladder is removed there for chronic pancreatitis on the supposition that the disease is due to chronic infection from sepsis arising in the gall bladder. I saw one gall bladder removed which contained hundreds of minute stones which could not be palpated from the outside of the bladder.

On two consecutive mornings there was a case of stone in the ampulla at the lower end of common duct which could not be felt when the probe was passed down, but was brought out by a scoop.

During a cholecystectomy the cystic duct is usually included in the same ligature as the cystic artery and the bladder removed from above downwards in the usual way. Judd's method of rotating the liver is always used, and is made easy by division between ligatures of the suspensory ligament of the liver, and a gall bladder pillow is not used.

Many of the Mayo Clinic surgeons do gastro-jejunostomy in three layers: 1st, sero-muscular; 2nd, muscular; 3rd, musculo-mucous. After this operation they administer bicarbonate of soda regularly to diminish the tendency to gastro-jejunal ulceration.

Dr. Balfour, who is a son-in-law of Dr. William Mayo, is originally from Toronto, and he is extraordinarily skilful in performing partial or complete gastrectomy. I have myself seen him do three of these before 11 in the morning of one day. I saw Dr. Charles Mayo making a long incision longitudinally through the pylorus, for pyloric ulcer, and sometimes excising the ulcer if small, with scissors, through this incision. He runs the incision down along the first two inches of the duodenum and sews up the other way, very much like a pyleroplasty operation. He says that so much gastric ulcer is associated with pyloric spasm that this operation is most beneficial, and there is no risk after it of gastro-jejunal ulceration because the normal balance between gastric and duodenal secretions is not upset. There are certain cases for which this operation seems very well suited.

The radiologists at the Mayo Clinic do *not* attach much importance to the X-ray diagnosis of cholelithiasis as the absence of a shadow does *not* at all assure the absence of a calculus. I saw some beautiful plates showing the presence of gall calculi.

Their X-ray expert told me that his diagnosis of duodenal ulceration was based on—

1. Irregularity in outline of the duodenal cap.

2. A large stomach which takes six hours or over to empty in spite of violent contractions (the delay being due to pyloric spasm). Note—this time ratio is worked out on a standard meal of 2 oz. of starchy food and 2 oz. of barium.

I heard Dr. Judd give a "symposium" on carcinoma of the colon, describing the work done for 1,672 cases of this disease during about three years at the Mayo Clinic. Out of these—

171 were in the cæcum.
5 were in the hepatic flexure.
5 were in the splenic flexure.
438 were in the sigmoid.
1053 were in the rectum.

It is interesting to note that out of this series of 1,672 cases, those occurring in the *left* side of the abdomen numbered 1,496 and those on the right side numbered 176, or roughly as 8 is to 1.

He discussed the prognostic power of the microscope in these cases and said that—

1. Cases with lymphocytic infiltration were much worse than those without.

2. Cases with much fibrosis were the better cases.

3. Cases with hyalisation, that is, hyaloid degeneration, did better than the others.

It is very interesting to note in this connection that radium helps in each of these three ways. That is, it helps to absorb lymphocyte infiltration, it tends to produce fibrosis, and also hyalisation.

When intestinal obstruction was present they always made it a two stage operation—1, Colotomy; 2, Removal.

Also the operation for carcinoma of rectum even without obstructive symptoms was always a two stage operation—

1. Colotomy with exploration of the liver and abdominal glands.

2. Kraske's operation with sacral anæsthesia which was very successful; the only pain felt was when the rectum was pulled hard and when the peritoneum was opened high up.

I saw this operation done several times very satisfactorily with sacral anæsthesia and, on one occasion, part of the prostate was removed which was very near the growth.

Dr. Judd's treatment of diverticulitis of the colon was, if medical treatment failed, temporary colotomy and lavage of the distal portion of bowel with saline and weak antiseptic.

Some very pretty X-ray photos demonstrating colon diverticula made apparent by a barium enema were shown and I saw a case of diverticulitis of appendix which was, I was told, common over there.

Genito-Urinary Work.

I was much impressed with the open method of prostatectomy. Trendelenberg position was used and without distending the bladder in any way (because the peritoneum has slipped backwards)—a large incision is made into the whole length of the bladder and a large retractor (Thompson-Walker's pattern) introduced. The whole bladder is visualised and an incision made transversely along the front margin of the prostate, which is shelled out in the usual way. Then the hæmorrhage is absolutely checked by suturing the mucous membrane in such a way as to obliterate the cavity left by the removal of the prostate; the whole field was made dry and *no* bladder lavage was done. Further hæmorrhage was prevented by the introduction of a small rubber bag which resembled the Champetier deribe bag used in obstetrics, which was fixed so as to press on the base of the bladder. It had two rubber connections, one which went out of the bladder through the suprapubic opening and the other which passed down the urethra and was attached by an apparatus to the legs. This bag was removed through the incision the following day.

Dr. Judd considers that carcinoma of the prostate is not superimposed on an adenoma, but that it arises separately and always from the posterior lobe of the prostate.

They have abandoned spinal anæsthesia in favour of sacral anæsthesia in prostate operations, but most of these cases still have open ether. This is because there have been several fatalities in people over 60 following simple diagnostic lumbar puncture.

I was interested in "decompression of the bladder," which is a method of securing the gradual lowering of pressure within the bladder when treating acute retention. It simply consists of attaching a long rubber tube to the catheter in the bladder and fixing it to a T-shaped tube at the foot of the bed and holding it at first so as to equal the water pressure in the bladder and then gradually bringing this lower hour by hour.

Dr. Judd recommends a pararectal incision for operation on calculi in the lower end of the ureter without opening the peritoneum, but peeling the latter off as you go backwards, and the ureter will peel off with the peritoneum; they have established a series of 700 impacted stones in the lower end of the ureter.

I was present on one occasion at operation for calculus in the kidney pelvis and in order to see whether there was any further calculus in the kidney, the portable X-ray apparatus was brought into the theatre, and with the kidney completely exposed the lights were switched off and the X-rays used to transilluminate the exposed kidney; by that means without incising the kidney substance the complete absence of further kidney stone was demonstrated.

There was a case of hypernephroma; this is the commonest kidney tumour at the Mayo Clinic; it is nearly always malignant, and I was told that of the two kinds, the white and the yellow, the white was the more malignant.

For bad erosion of the cervix uteri and also for hypertrophy the electric cautery or the diathermic cautery is used; this is penetrated half an inch deep or more, parallel to the cervical canal, in several places.

Nervous System Surgery.

This branch was under Dr. Adsen and it was in some ways the most interesting of all. While I was there, three operations were done for spastic paraplegia; the operation performed which was originated by an Australian surgeon, consisted in exposing the lumbar sympathetic ganglion and dividing the connection of each ganglion which runs through the spinal foramina to the spinal cord. The operation was certainly followed by great improvement in the leg movements which I saw for myself within a week, but I do not know what the ultimate results were. The abdominal route was chosen and the sympathetic exposed by placing the patient in the Trendelenberg position and packing the intestines towards the diaphragm.

I saw laminectomy performed for a small tumour of spinal cord, and the whole exposure was done under infiltration anæsthesia with novocaine. The actual laminectomy was entirely performed under local anæsthesia, but the manipulations necessary for displacing the cord and removing the fibrous tumour, about the size of a date stone, required a general anæsthetic. The growth was on the antero-lateral aspect of the cord and arose from the inner aspect of the dura mater. The actual laminectomy was done by nibbling forceps and the spinous processes and the posterior arches of the vertebræ were permanently removed.

I saw several brain tumours operated upon; the amount of work done under local anæsthesia is quite extraordinary and in one case under infiltration anæsthesia. It was a doctor's brother. The whole left frontal lobe was exposed, four large drill holes were made in the temporal and parietal region of the skull, and these were joined by a Gigli saw, except the base of the quadrilateral, which was broken off forcibly; in this way a complete skin musculo-osseous flap was made. The advantage of local anæsthesia is that the hæmorrhage, which is a most troublesome complication of brain operations, is undoubtedly less. This case presented the following features among others—headache, slight vertigo, no optic vomiting, no optic neuritis, no fits, loss of power in right hand and prickling sensation in right arm, depreciation in general health, and once some slight aphasia. Dr. Adsen said that but for the last symptom (aphasia) it might have been a cerebellar tumour, in which case it would have been right-sided.

Another interesting exploration was for a cerebellar tumour, which was found to grow downwards through the foramen magnum, the posterior arch of which was entirely removed, and the cerebellar tumour passed downwards so far that Dr. Adsen did not proceed with its removal, but removed a portion for microscopical examination.

While I was in Toronto I saw a case of cystic pituitary tumour; these are congenital in origin and this one occurred in a boy of 13. They are diagnosed by the X-rays and show a flaky bone shadow. Cushing has published a series of 35.

A diagnostic method useful in cerebellar tumour sometimes, where the tumour has produced pressure on the fourth ventricle, is to trephine over the parietal area and withdraw some fluid from the lateral ventricle (in the case I saw 80 c.c. were withdrawn) and inject the same amount of air—then radiograph and the size of the lateral ventricles will be shown both in a lateral view and an antero-posterior view. In the case I saw, the third ventricle could be seen distended by the air as shown by the lateral radiograph, and that indicated the diagnosis of cerebellar tumour when taken in conjunction with the clinical symptoms, which were occipital headache, some visual disturbance and choked discs. These cerebellar operations were done in the completely prone position, the face lying in a special support, suitable for the anæsthetic, and the anæsthetist took up a position beneath the table.

Thyroid Work.

The reputation of the Mayo Clinic was originally built up by very successful goitre work. It has now grown to immense proportions, and I believe that over 1,700 goitre operations were performed in 1923. These are nearly all done under local anæsthesia, infiltration method with ½ per cent. novocaine and from 200 to 400 c.c. is used. Some use 1 per cent. novocaine. If necessary the substance of the gland can be injected, after the muscles have been divided.

The toxic goitres are all treated with Lugol's solution of iodine and pot. iod. until the toxic symptoms abate and since this has been done the mortality has been enormously reduced. It is most remarkable how the bad cases calm down with it and the inoperable cases become operable ones.

In this connection it is interesting to note that the production of goitres is believed to depend on the absence of iodine in the water supply, and support is found for this theory in the fact that when one-half of large schools in a town has been supplied with water doped with a little iodine and the other half left as a control, the children supplied with iodine water have not developed thyroid growth.

At Rochester they have found that the tendency of toxic goitres which come from the Atlantic seaboard is of a less severe type than those coming from the inland areas. I think that perhaps this is similar to the observation we have made here on the coast of North Wales, that a very large proportion of our cases here can be alleviated and practically cured by purely medical means.

I saw a very large thyroid removed which grew beneath the sternum and obliterated a considerable proportion of the lung space; this was spooned out and the cavity packed with gauze which was changed daily afterwards. When both lobes of the gland have to be removed, of course leave the isthmus behind and divide the centre of it, so that when it grows, as it is bound to do, it will not press on the trachea. A lot of thyroid work was being done with Ethylene (a new anæsthetic rather like purified acetylene) and oxygen. This anæsthetic was still on its trial. It is a gas stored in cylinders and has a rapid action, producing some cyanosis, for which the oxygen is used, and the patient very rapidly comes round.

While on the subject of anæsthetics, I should like to mention the sacral anæsthesia which is so popular for rectal, perineal and vaginal operations. It is produced by injecting about 80 c.c. of 1 per cent. cocaine hydrochloride in toto, into the sacral canal by passing the needle between the sacrum and coccyx, and also through each of the posterior sacral foramina. This is done about one hour before the operation is due, and the anæsthesia lasts for several hours. I was rather impressed by the difficulty in locating at once the posterior sacral foramina even in the hands of an expert and the pain given in finding and passing the needle through so many different foramina would not suit many patients, especially on this side of the water.

X-Ray Work.

The deep X-ray therapy for pelvic and abdominal tumour is done by a 200,000 volt current passed through aluminium and copper filters. For cases of carcinoma mammæ and Hodgkin's disease 135,000 volts are filtered through aluminium and for ordinary skin work 60,000 volts through a naked tube without filter.

For inoperable cases of carcinoma of cervix X-rays combined with radium are recommended.

It is of interest to note that X-rays have been used for whooping cough and although it does not shorten the disease, it gives much relief at the worst period of the complaint.

I was anxious to see how complete thoracoplasty for phthisis was done and to see the results. This is a very mutilating operation,

as it produces complete collapse of the one side of the thorax and undoubtedly secures rest to that lung. The operation is a subperiostal removal of part of each rib, and it has been found that removal of a small portion of rib produces as much collapse as removal of a large portion, but a portion of the first rib *must* be removed. The portion removed is usually near the angle of the rib. The entire operation is done under local anæsthesia (novocaine), the intercostal nerves being injected and the tissues infiltrated. One long incision is made, roughly parallel to, and a hand's breadth from the spine. The operation should only be done for unilateral phthisis, but I was not much impressed by the results.

It seemed to me that this method should not be used until other methods which are known to give good results have failed, and by that time the disease has probably ceased to be unilateral.

There were a good many cases of persistent fistula following empyema operated upon elsewhere; this was usually due to osteomyelitis of the ribs, occasionally of tuberculous origin. At other times this is due to a bronchial fistula. This is where the fistula communicates with the cavity of a bronchus and can be proved by syringing the sinus out with Dakin's solution, which will run into the bronchus and produce violent coughing. The best treatment for a bronchial fistula of this kind is to wash out with silver nitrate solution, which causes an inflammatory reaction, and prevents the growth of the bronchial epithelium, which was keeping up the fistula.

While in Rochester Dr. Walters very kindly motored me out to the Mayo Institute of Research. This is situated quite in the country and consists of a dog farm, completely equipped with chemical and bacteriological laboratories and operating theatre, fitted with sterilisers and outfit, the whole being used for research work and also for teaching post-graduate students to perform their first abdominal operations, like gastro-jejunostomy, cholecystectomy, etc., on the living dog rather than on the living man. This work is done, of course, under an anæsthetic and under conditions of perfect aseptic technique. Here most important work has been done and more is certain to follow. For instance, when the complete removal of a dog's liver has been done, death follows in a few hours, but if the dog is fed on glucose solution he remains remarkably well and runs about quite happily for about a fortnight.

Here also the pathology of jejunal ulceration following gastro-jejunostomy has been worked out, for if a dog's duodenum be divided between ligatures and the proximal portion short circuited with the lower end of ileum and a gastro-jejunostomy done, this is followed by a crop of jejunal ulcers, identical in appearance and microscopically with human jejunal ulcers; moreover these can be cured by closing the gastro-jejunostomy and re-establishing the duodenum.

This shows that jejunal ulcers are due to disturbance of the balance between gastric secretions and duodenal secretions, which produces probably digestive changes resulting in ulceration of the jejunum.

The Discovery of Southwark Cathedral.

The Proceedings of the Southwark League for the Discovery of London.

O'CONNOR and Brook agreed that they would search no maps and interrogate no policeman, but would discover Southwark Cathedral at the second attempt. Leaving St. Saviour's Churchyard, we knowing ones suggested that we should view the landscape from London Bridge in the hope of seeing some ancient pile soaring over the Borough. From the middle of the Bridge we looked due South. There stood St. Olave's tower on the left and St. Saviour's on the right. There were wharves and chimneys all round and the water tower of Guy's over the railway but no Cathedral. "There's nothing for it," sobbed Brook, "we must pick up the trail at St. George's." A moment later five men entered a 'bus and soon stood outside the church of St. George the Martyr. It was my suggestion that we should redeem the time by exploring this corner in South London. Facing the imposing flight

of the steps leading to the church Clayson informed us that he remembered when the churchyard encircled the church. Some years ago Long Lane walked right through the old burial ground and has never retired. We thought we might view the pleasing little garden, now relieved for the most part, of grave stones, so we crossed Long Lane, entered the garden, sat down under a tree and faced the north. In front of us was an ancient wall and here and there notices to the following effect:—

> This site was originally the Marshalsea Prison made famous by the late Charles Dickens in his well-known work

LITTLE DORRIT.

The boards almost told the truth. Originally, I suppose, the site was that of the King's Bench Prison which moved into new quarters on the west side of the Borough High Street many years ago. From that time all the prison buildings here were known as the Marshalsea. We were all impressed by the very word Marshalsea. Over that wall human misery of every description had existed and depravity of every kind had been practised. True, prisoners had liberties denied to some now but there are well authenticated stories of the vile conditions under which they lived and slept, which cannot be retailed. Not only did this prison shelter criminals and debtors but religious prisoners also found a home here. Merbecke, whose music is sung in almost every church in the diocese, spent some time in the Marshalsea. He was tried in the Lady Chapel of St. Saviour's for making an English translation of a Latin Concordance to the Bible and lodged in prison.

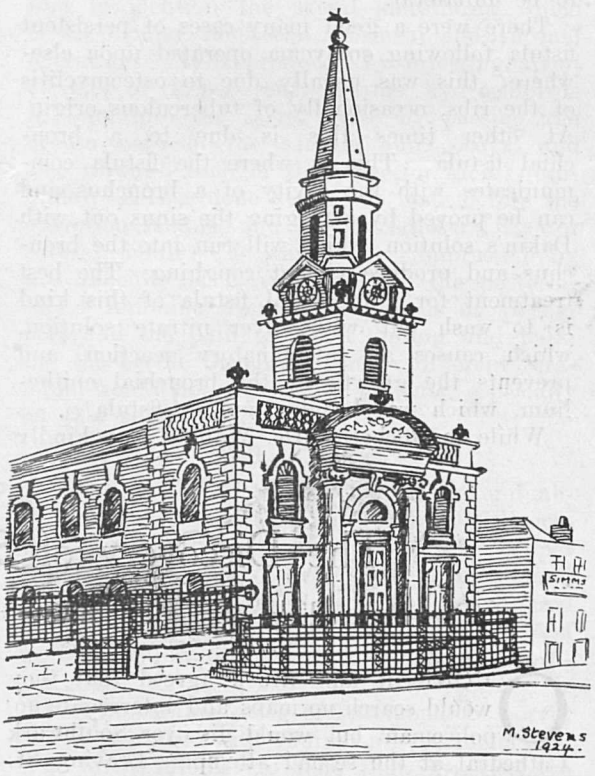
BISHOP BONNER.

A more notable prisoner was Bonner, Bishop of London, who, for having obstinately refused attendance at public worship and for railing against the religion of the reign of Elizabeth was cast into the buildings in front of us on April 20th, 1560. He was one of the most hated men in England—hated because he had taken part in the trials of some of Mary's victims and sat approvingly in the Lady Chapel in 1555, where Gardiner passed many death sentences. Apparently the feeling against Bonner did not recede for when he died, ten years afterwards, the turnkeys buried him at midnight in this churchyard for fear of a hostile demonstration against his dead body. Thousands of people have searched for the grave, but without success.

We were getting gloomier and gloomier when Cheeseman began to rehearse the story of Little Dorrit and the Big Dorrits. Pointing up to a little window above the wall he tried to persuade us that "the poor wee thing" looked from there on to the churchyard. We heard all about her Baptism and her sleep in the vestry and her marriage in St. George's and then made a move to the church in question. Brook was eager to find the Cathedral, but I persuaded him to halt for a moment to contemplate the scene.

SOUTHWARK FAIR.

Outside the church we were on historic ground, for here for centuries the Southwark Fair was held. To this spot year by year came the Lord Mayor and his court to open



Church of St. George the Martyr, Southwark, Built 1724. Note churchyard on left of the picture which has now been curtailed.

the "Lady Fair," so called because it was opened on 8th September—the feast of the Nativity of "Our Lady." Once, at least, Pepys

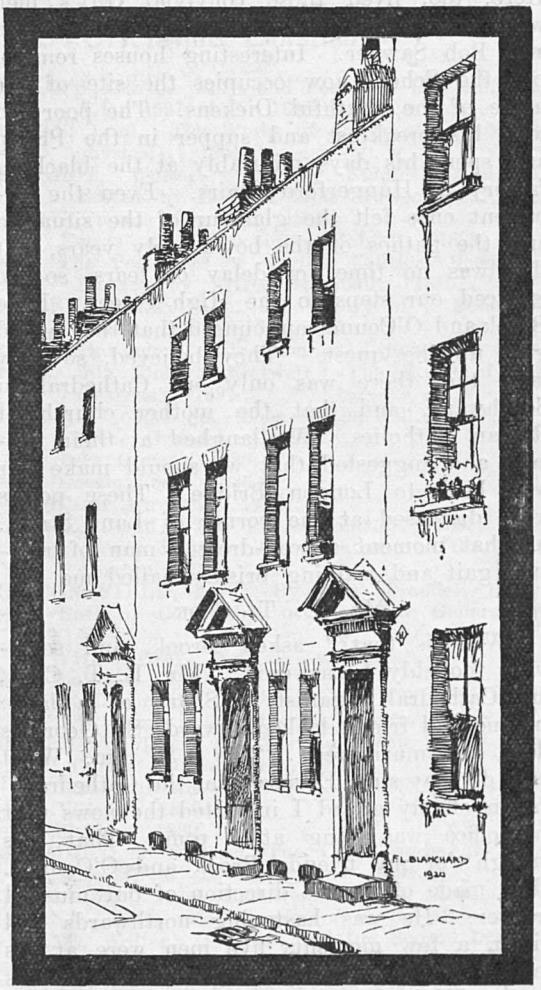
came to take part in the function and was able to converse with one of the tight-rope walkers in a tavern after the performance. And of course Hogarth knew the Fair well and painted the famous picture which depicts the old church, the falling gallery and the lady performing on a rope in mid-air. Booths, tents, theatres, circuses, music halls, menageries and band stands covered the immediate district once a year. The old records tell of disorderly persons who were attracted, but they also give the glad tidings that special provision was made for "the Quality." I exhibited to my friends a newspaper cutting dated 1754, which told of a lady on whose head a tile fell one night during the Fair. "It might," said the journalist, "have beat out her brains were it not evident that one possessed of that article would not venture to such a place."

Cheeseman was anxious to move from the secular to the religious and suggested that we should inspect the interior of St. George's.

BATCHELORS.

We all agreed except Clayson. "A most dangerous place," he said with more than usual conviction. We asked for an explanation and he assured us that few batchelors ever came out of that church. "They go in," he said, "but rarely come out, and I'm running no risks." In chorus we assured him that we were all hardened and determined bachelors frightened of no church and no foe. He had seen too many good men led out of that building by scheming females so he insisted on sitting on the steps while we went in. The present building only dates back to 1734. It was one of the "Fifty Queen Anne Churches" so-called because there were only twelve of them. It was built by an architect named Paine on the site of two or three earlier churches, the first of which was built in 1122 and dedicated to St. George. After the Reformation church life was somewhat irregular here. In 1641 it is said that a cobler was invited to preach. He had keen convictions on the subject of physical torment after death. "Fire, fire, fire," he shouted as a peroration to his discourse, and several people whose interest had flagged made a rush for the door. Others followed and the service had an undignified ending. And moreover, there was no collection. The members were very patient as I related these historical details. They were duly impressed with the rumour that Father Schmidt built the organ. I realise now that the members of the League represent the pick of the manhood of the diocese, for they all agreed when I said that in one direction St. George's gives a lead which every church ought to follow in that its organ and choir occupy a west gallery. Most of our churches are ruined by choir-stalls and obtruding organs. They crowd the east end of churches where space is the one essential thing. Nobody realises it save the members of the S.L.D.L., but when George X. is on the throne choirs will go to their proper place. We are optimists.

It need hardly be said that bachelors we were born, bachelors we went in, and bachelors we emerged. It is only on Sundays and Bank Holidays that danger is abroad.



Lant Street Southwark.

Dickens' Land.

Once safely on the pavement our two friends shy of further delay, turned to the left and walked down the Borough High Street towards the Elephant. Catching them up outside the Post Office I called attention to Lant Street on the other side of the road. "Is Southwark Cathedral in Lant Street?" asked Brook, a little peevishly. "Wait and see," I insisted. We crossed the road and saw, in that little thoroughfare, not a Cathedral certainly, but a big Council School. Again we were on historic ground for the London-lover, for it was here in the street named after a nephew of Mrs. Newcomen, Thomas Lant, that Charles Dickens lived in a little attic while his father and mother were in the Marshalsea. Here, too, lived those convivial Guy's men who entertained Mr. Pickwick, Ben Allen and Bob Sawyer. Interesting houses remain, but the School now occupies the site of the home of the youthful Dickens. The poor lad took his breakfast and supper in the Prison and spent his days miserably at the blacking factory at Hungerford Stairs. Even the impatient ones felt the glamour of the situation and the pathos of the boy's early years, but this was no time for delay or tears, so we retraced our steps to the High Street. Here Brook and O'Connor announced that they would give up the quest. They believed, so they said, that there was only one Cathedral in Southwark, and that the mother church of Roman Catholics. We laughed at their mistake and suggested that we should make our way back to London Bridge. These points were discussed at the corner of Lant Street. At that moment a well-dressed man of military gait and walking briskly hailed me.

Mr. E. T. Cook.

"Who is that?" asked Brook, and somewhat foolishly I answered, "Mr. E. T. Cook, the Cathedral organist." Sharp as a lance my medical friend looked towards St. George's clock and murmured. "It's 4.30 p.m. What time do they sing Evensong at the Cathedral?" Taken off my guard I imparted the news that the office was sung at 5 p.m. That was enough for my friends Brook and O'Connor. They made off in the direction of our musical brother. He was hastening northwards and within a few moments five men were at his heels. This involved passing some old houses in the High Street, numbers 220, 218, 152, 148 and 146, but nothing could hold us back. Between numbers 64 and 62 we came upon that old-world little passage, St. Margaret's Court, which almost marks the place where the old church of that name stood. Opposite the George Inn and just beyond St. Margaret's Court there is an island site upon which the old church stood until the Reformation. At that time, when the people of St. Margaret's joined the people of St. Mary Magdalene Overy in securing the old Priory of St. Mary Overy, the church of St. Margaret was secularised and became the Town Hall.

The Old Town Hall.

Following Mr. Cook we walked on the right side of the island and just had time to notice two things. The Bank on the island is housed in "Town Hall Chambers," and just beyond the Bank there is a tiny passage called Counter Street. These things recall the history of the Borough. The old Town Hall was burnt in the fire of 1676 and was rebuilt. Over the doorway they set up a figure of Charles II. This building disappeared in 1793, but the name survives as a reminder. Counter Street stands near to the little Counter (or Compter) Prison which flourished here in the days when the good folk on the north bank of the Thames sent all the things they didn't want to the south side. Keeping the figure of St. Cecilia's brother well in view we saw him dart into Three Crown Square, which opens out of Southwark Street between numbers 8 and 10. The appearance of this once important square made me suggest to Cheeseman that he should form the Royal Society for the Prevention of Cruelty to Houses. I almost wept at the sight. The buildings looked so tired. They were obviously very weak at the knees; facial paralysis had at some time afflicted them all. My tendency was to make a speech, for here, a century ago, well-off merchants lived. In the middle of the square there stood a sturdy watchman's lodge and on it Charles II. was placed when the Town Hall needed him no longer. The lodge disappeared long ago and so did Charles. Opinion is divided as to his destination. Humorists make all kinds of suggestions, but a serious history states that he found a home in the Old Kent Road—where, I know not. A speech was vetoed lest we should lose touch with the fleeting figure bound for Evensong. We all followed him down a little passage which opened

from the N.E. corner. We passed Knight's Coffee House and found ourselves in the Borough Market and then in Cathedral Street.

THE CATHEDRAL DISCOVERED.

Brook and O'Connor could hardly hold themselves for excitement. We watched the musician open a private door at the west of St. Saviour's Church and descend the steps. In hot pursuit and with shrill voices we tumbled down those steps. Kindly but firmly Mr. Cook announced, "Yes, we need no sopranos." Brook explained the situation, disclaimed any intention of joining a choir and asked for direction to Southwark Cathedral. He and we were politely referred to the Dean's Verger and Apparitor of the Diocese. He explained to us how the Priory of St. Mary Overy became the Parish Church of St. Saviour and how the Parish Church added dignity to itself by consenting to become a Cathedral in 1905. Then we all laughed with economy out of respect for the Cathedral vestry and then assisted with Mr. Cook at Evensong.

T. P. S.

Students' Club Library—Catalogue of Books.

Compiled by GEO. A. R. WINSTON, Wills Librarian.

[*It is to be hoped that readers of the* GAZETTE *will make more use of the library of the College Reading Room on discovering what an excellent and representative collection of books there is as shown by the index which we are publishing in instalments.*]

ABBEY, Charles J. The English Church and its Bishops, 1700—1800. 2 Vols., 1887.
ABBOT,——. Sequel of the Monastery. N.D.
ABBOTT, Rev. Edwin. Oxford Sermons. 1879.
ADAMS, Maurice. The "Utopia" and the History of Edward V., by Sir Thomas Moore. With Roper's Life. N.D.
AINGER, A. C. Fives. 1890.
AINSWORTH, William Harrison. The Tower of London. N.D.
——. Old St. Pauls: A tale of the Plague and Fire. N.D.
AKENSIDE, Mark. The Poetical Works of. 1886.
ALEXANDER, Mrs. Blind Fate. 1891.
——. Her Dearest Foe. 1895.
——. The Wooing O'T. 1893.
AMELIA. The History of. N.D.
ANDOM, R. Industrial Explorings in and around London. 1896.
ANSOM, W. S. W. Asgard and Godo. Adapted from the work of Dr. W. Wägner. 1880.
——. Epics and Romances of the Middle Ages. From the work of Dr. Wägner. 1890.
ARCHER, Wm. Rosmersholm: The Lady from the Sea: Hedda Gabler. N.D.
D'ARMES, Mâitre. Fencing.
ARMSTRONG, Walter. Wrestling. 1889.
ARNOLD, Matthew. The Poetical Works of. 1890.
——. Essays in Criticism. 1891.
ARNOLD, Sir Edwin. The Light of Asia. 1891.
ARNOLD, Thomas. The Life and Correspondence of. 1890.
AUSTEN, Jane. Sense and Sensibility. N.D.
——. Mansfield Park. N.D.
——. Pride and Prejudice. N.D.
——. Emma. N.D.
BACON'S Essays. Plays and Poems by Ben Johnson, A.D. 1597—A.D. 1648. 1889.
BACON, Lord. The Works of (Physical and Metaphysical). 1891.
BAGSHOT, Walter. Literary Studies. Vol. 2. Edited by Richard Holt Hutton. 1891.
——. Economic Studies. 1888.
——. Essays on Parliamentary Reform. 1883.
——. The Postulates of English Political Economy. Preface by Alfred Marshall. 1885.
BAILEY, James Blake. The Diary of a Resurrectionist, 1811—1812. 1896.
BAIN, Alexander. Education as a Science. 1889.
BALL, Sir Robert Sterwell. The Story of the Heavens. 1891.
BALZAC, Honoré de. Sons of the Soil. 1891.
——. Eugéne Grandet. 1886.
——. Pere Gorist. 1886.
——. Cousin Pons. 1886.
——. César Birotteau. 1887.
BARRIE, J. M. The Little Minister. 1892.
BATES, Henry Walter. The Naturalist on the River Amazon. 1884.
BEACONSFIELD, Lord. By J. A. Froude. 1891.
——. Earl of Coningsby, or the New Generation. N.D.
——. Vivian Grey. N.D.
——. Lothair. 1890.
——. Sybil, or the Two Nations. N.D.
BEATTIE, James. The Poetical Works of. N.D.
BEAUFORT, Duke of. Driving. 1889.
BELL, Currer. Jane Eyre. 1889.
——. The Professor. 1890.
——. Villette. 1890.
——. Shirley. 1890.
BENEDICT de Spinoza, The Chief works of. By R. H. M. Elwes, 2 vols. 1891.
BERESFORD, Max. Belhaven. 2 vols. 1892.
BESANT, Annie. Fabian Essays in Socialism. N.D.
BESANT, Walter. The Pen and the Book. 1899.
——. By Celia's Arbour. 1896.
——. The Chaplain of the Fleet. 1890.
——. All sorts and conditions of Men. 1889.

BICKERDYKE, John. Sea Fishing. 1895.
BIRRELL, Augustine. Res Judicatæ. 1892..
——. Obiter Dicta. 1887.
BJORNSON, Bjornstjerne. The Heritage of Kurts. Translated from Norwegian by Cecil Fairfax. 1892.
——. In God's Way. Translated from Norwegian by Elizabeth Carmichael. 1891.
BLACK, William. A Princess of Thule. 1891.
——. The Strange Adventures of a Phaeton. 1886.
——. Green Pastures and Piccadilly. 1878.
BLACKMORE, R. D. Lorna Doone. 1890.
BLAKE, Rev. G. L. Yachting. 1894.
BLAND, Hubert. Fabian Essays in Socialism. N.D.
BOMPAS, George C. Life of. By Frank Buckland. 1885.
BOOTH, Charles. Life and Labour of the People in London. 4 Vols. 1892.
BORROW, George. The Romany Rye. 1888.
——. The Bible in Spain. 1888.
——. Lavengro. The Scholar, The Gypsy, The Priest. 1888.
BOSWELL, James. The Life of Samuel Johnson, LL.D. 3 Vols. 1888.
BOUVERIE, E. O. P. Rackets. 1890.
BOYS, C. V. Soap Bubbles and the forces which mould them. 1890.
BRASSEY, Lord. Yachting. 1894.
BRAYBROOKE, Lord. The Diary of Samuel Pepys, Esq., F.R.S., from 1659—1667. N.D.
BRINSLEY-RICHARDS, James. The Alderman's Children. 3 Vols. 1891.
BRITTAIN, Harry. Rambles in East Anglia. 1899.
BROADFOOT, Major W. Billiards. 1896.
BRONTE, Anne. The Tenant of Windfell Hall. 1890.
BRONTE, Emily. Wethering Heights. 1890.
BROOKE, Stopford A. Poems of Shelley. 1887.
——. Sermons Preached in St. James's Chapel, York St., London. 1883.
BROWN, J. Moray. Polo. 1891.
BROWNE, Charles F. The Complete Works of, better known as "Artemus Ward," 1889.
BROWNE, Sir Thomas. Religio Medici letter to a Friend, etc., and Christian Morals, 1889.
BROWNING, Robert. Selections from the Poetical Works of. 1891.
BROWNING, Elizabeth Barrett. Poetry of. 1890.
BRUCE, John. The Poetical Works of, by John Cowper. N.D.
BRYCE, James. The American Commonwealth. 1889
BUCK, Henry A. Ice Skating. 1892.
BUCKLAND, Frank. Life of, by George C. Bompas. 1885.
——. Curiosities of Natural History. 1888.
BUCKLE, Henry Thomas. History of Civilisation in England, 3 vols. 1891.
BURKE, by John Morley.
BURKE, Speeches and Letters of. By S. T. Shandy. Sheridan's Plays. A.D. 1759—A.D. 1779.
BURNABY, Fred. A Ride to Khiva. N.D.
BURNETT, Frances Hodgson. Through one Administration. 1890.
——. That Lass o' Lowries. 1887.
BURNS, Robert, Life of. By John Stuart Blackie. 1888.
——. The Poetical Works. N.D.
BURTON-BROWN, E. Recent Excavations in the Roman Forum, 1898—1904. 1904.
BUTCHER, S. H. The Idyssey of Homer. 1890.
BUTLER, Samuel. The Poetical Works of. 2 Vols. N.D.
BUTLER, Joseph. The Works of. By Samuel Halifax. 2 Vols. 1874.
BYRON, Lord. The Complete Poetical Works of. By William B. Scott. 1887.

CAINE, Hall. The Bondman. 1893.
CALVERLEY, C. S. Verses and Translation. 1888.
——. Fly Leaves. 1890.
CAMPBELL-PRAED, Mrs. The Ladies Gallery. 1892.
CARLYLE, Thomas. Critical and Miscellaneous Essays. 4 Vols. N.D.
——. Oliver Cromwell's Letters and Speeches. 3 Vols. N.D.
——. The French Revolution. N.D.
——. History of Friedrich II. of Prussia, called Frederick the Great. 7 Vols. N.D.
——. Translations from the German. Wilhelm Meister's Apprenticeship and Travels. N.D.
——. Latter-day Pamphlets. N.D.
——. Chartism, Past and Present. N.D.
——. Sartor Resartus. Lectures on Heroes. N.D.
——. Musœus, Tieck, Richter. 1827. Translations from the German. N.D.
——. Life of Frederick Schiller. 1825. Life of John Sterling. 1851.
CASTLE, Edward Walter. Yachting. 1894.
"CAVENDISH." Whist. 1889.
CAXTON, Pesistratus. "My Novel." N.D.
BRONTE, Charlotte. The Life of. By Mrs. Gaskell.
CHAUCER, Geoffrey. The Poetical Works of. by Richard Morris. 6 Vols. 1886.
CHOLMONDELEY-PENNELL, H. Fishing. 1889.
CLARKE, William. Fabian Essays in Socialism. N.D.
CLIFFORD, Mrs. W. K. Aunt Anne. 1892.
CLOUGH, Arthur Hugh. Poems of. 1890.
COBBAN, J. MacLaren. The Red Sultan. 3 Vols. 1893.
——. The Burden of Isabel. 3 Vols. 1893.

(To be continued.)

Change of Address.

J. L. de Kock L.D.S., Phillips Chambers, corner of Main and Station Roads, Wynberg, S. Africa.

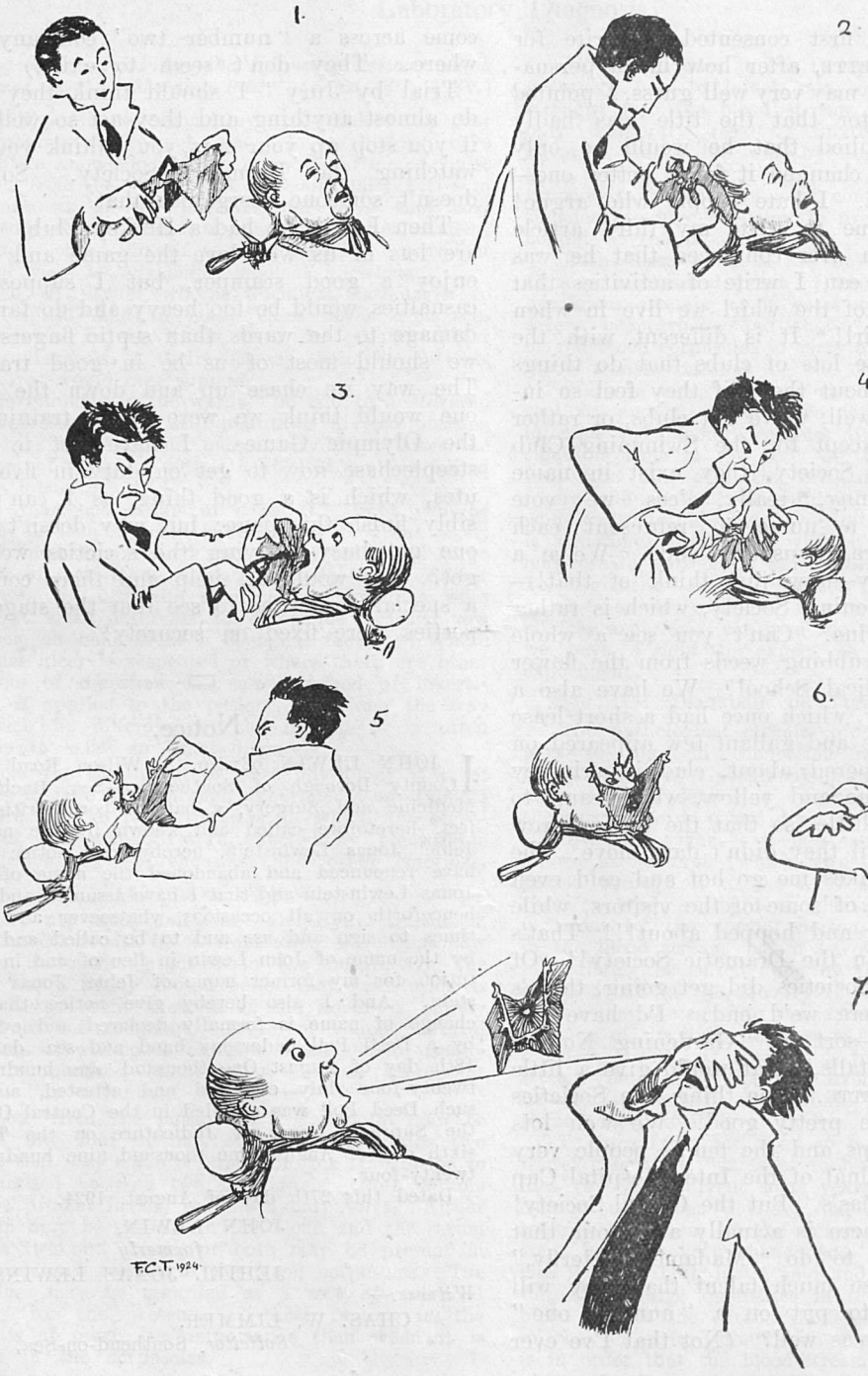
E. F. Wilson, F.R.C.S., Carisbrooke Townsend Hill, Mannamead, Plymouth.

Douglas A. Mitchell, M.B., B.S., F.R.C.S., "Red Roof" Midsomer Norton, Somerset.

Publications Received.

St. Mary's Hospital Gazette, The British Journal of Dermatology and Syphilis, St. Bartholomew's Hospital Journal, Bratislarské Lekárske Listy, The Burma Medical Times, The Dental Record, The Antiseptic, Archives of Medical Hydrology, The Prescriber, The Nursing Times, The British Medical Journal, Manchester University Medical School Gazette, St. George's Hospital Gazette, The Long Island Medical Journal.

RUBBER D-MN!



The Whirl We Live In.

[Being an accurate and impartial account of the activities of the Nurses' Home.]

By T. G. S. M.

WHEN I first consented to write for the GAZETTE, after how much persuasion you may very well guess, I pointed out to the Editor that the title was badly chosen. He replied that he would be only too pleased if I changed it for a better one—and so I left it. I hate people who argue! Now that I come to write my third article I am more than ever convinced that he was wrong, for how can I write of activities that do not exist or of the whirl we live in when there is no whirl! It is different with the men. They have lots of clubs that do things and can write about them, if they feel so inclined, but we—well, we've got clubs, or rather societies, but, except for the Swimming Club and the Choral Society, they exist in name only. It's funny, really, 'cos we vote each year for a nurse to represent each society and there it usually ends. We've a Debating Society—now just think of that!—and also a Gardening Society, which is rather painful to imagine. Can't you see a whole host of Pro.'s grubbing weeds from the flower bed by the Medical School! We have also a Dramatic Society, which once had a short lease of life. A brave and gallant few appeared on a stage and capered about, clad in crinkley paper frocks, blue and yellow, which came to pieces little by little, so that the capers grew less and less until they didn't dare move. The memory of it makes me go hot and cold even now. The faces of some of the visitors, while the victims sang and hopped about!!! That's why I won't join the Dramatic Society!! Of course, if these Societies did get going, there's no knowing where we'd end. I'd have lots to write about—sort of "Gardening Notes," or "From the Stalls," that would give a little tone to the GAZETTE. One thing, the Societies we have got are pretty good. We won lots of swimming cups and the tennis people very nearly won the final of the Inter-Hospital Cup against St. Thomas's. But the Choral Society! Do you know there is actually a rumour that they are going to do "Madame Butterfly," and they have so much talent that they will probably have to put on a "number one" touring company as well? (Not that I've ever come across a "number two" company anywhere. They don't seem to exist.) After "Trial by Jury" I should think they could do almost anything and they act so well that, if you stop up your ears, you'd think you were watching the Dramatic Society. So why doesn't someone reorganise that?

Then I wish we had a Hockey Club. There are lots of us who love the game and would enjoy a good scamper, but I suppose the casualties would be too heavy and do far more damage to the wards than septic fingers. But we should most of us be in good training. The way we chase up and down the wards one would think we were all in training for the Olympic Games. I have got to do a steeplechase now to get on duty in five minutes, which is a good thing, as I can't possibly finish this page; but why doesn't someone get busy reviving the societies we have got? We would all help and there could be a special committee to see that the stage properties were fixed on securely!

Notice.

I JOHN LEWIN of No. 8, Wilson Road in the County Borough of Southend-on-Sea, Bachelor of Medicine and Surgery, a natural born British subject, heretofore called and known by the name of Jehiel Jonas Lewinstein, hereby give notice that I have renounced and abandoned the name of Jehiel Jonas Lewinstein and that I have assumed and intend henceforth on all occasions whatsoever and at all times to sign and use and to be called and known by the name of John Lewin in lieu of and in substitution for my former name of Jehiel Jonas Lewinstein. And I also hereby give notice that such change of name is formally declared and evidenced by a Deed Poll under my hand and seal dated the 18th day of August One thousand nine hundred and twenty-four duly executed and attested, and that such Deed Poll was enrolled in the Central Office of the Supreme Court of Judicature on the Twenty-sixth day of August One thousand nine hundred and twenty-four.

Dated this 27th day of August, 1924.

JOHN LEWIN,
formerly
JEHIEL JONAS LEWINSTEIN.

Witness:—
CHAS. W. LIMMER,
Solicitor, Southend-on-Sea.

Medicine in the Making.

Doctors Who Do Not See Their Patients.
Laboratory Diagnosis.

[*We are grateful for the following article which appeared in the "Morning Post," August 18th, 1924.*]

THE public, to whom Guy's Hospital is this year making the second appeal in its history, have little knowledge of the many departments, quite distinct from the wards, that are continually active in the interests of the patients, nor have they any knowledge of the extent to which the medical student cheerfully offers himself as a subject for experiment with a view to advancing medical knowledge.

Dr. J. H. Ryffel, who is Chemical Pathologist to the Hospital, and in many cases never even sees the patients in the wards, is a far greater factor in the diagnosis of their diseases than the patients themselves would ever suppose.

"The clinician in the wards," he said to a *Morning Post* representative, "still maintains his old position and forms his diagnosis, but in very many cases the evidence of what he sees is controlled and confirmed in the laboratory.

"To take one group of cases. A light can be thrown on such common affections as duodenal ulcer. The method was worked out as a result of a large number of tests made on normal students. A rubber tube was let into the stomach and samples were taken at short intervals to determine exactly how the stomach behaves as a chemical factory. Where duodenal ulcer is suspected or where there are other disorders of digestion the same method of investigation is applied to the patient, and from the way in which he differs from the normal it is often possible to make an exact diagnosis.

"From the standpoint of pure physiology it is of interest to note that through experiments on students we were able to trace the way in which the secretions of the stomach were affected by pleasurable anticipation, by apprehension, and other emotions.

Blood Transfusion.

"There are many fallacies," Dr. Ryffel continued, "in connection with blood transfusion, which has now become a routine practice in the hospitals. The public has a firmly rooted belief that transfusion is likely to be more effective if the donor is closely related to the recipient. It is, of course, natural that persons willing to sacrifice blood should usually be close relatives, but from a medical standpoint there is no advantage whatsoever.

"Blood, from the pathologist's standpoint, can be divided into four distinct classes. It contains two factors that may make it impossible for transfusion to be practised between two individuals. Both factors may be present in the red blood corpuscles. Either of them may be present in the blood and the serum (classes two and three), or both may be present in the serum and neither in the blood corpuscles. The last class may be regarded as a sort of universal 'donor,' for the presence of these factors in the serum is of much less importance than when it is present in the corpuscles.

"In the old days it was thought that all that was necessary was to inject salt solution of a certain strength into the blood stream. This, however, has only temporary results. Bayliss made a notable advance during the war by devising a solution of gum arabic, having proved that, in cases of shock, infusion to be effective must contain colloidal matter sufficient to give the osmotic pressure of the normal colloid of the blood.

"Both these methods are obviously only effective from a mechanical point of view, and when, as in pernicious anæmia, or in cases where there has been severe hæmorrhage and there is not a sufficiency of red blood corpuscles to carry oxygen to the tissues, blood transfusion may be the only possible remedy.

"Work is being done on the subject in many directions, and it is now known with certainty that the injected red blood corpuscles live for quite a considerable time in the body of the patient and may well tide him over the critical period. In cases where the method is employed to assist patients who are suffering from a definite disease the donor is sometimes immunised with a vaccine, so that he may create antibodies which will assist the patient. To dogmatise on the subject, however, would be unwise, as it will be a very long time before clinical experience can give the clear-cut results that we have a right to expect as a result of direct experiment.

Diagnosis of Jaundice.

"The pathological chemist often has an important part to play in connection with diagnosis, and in this there is a peculiarly beautiful reaction which may at times determine whether the interference of the surgeon is or is not desirable.

"Ordinary sugar is a mixture of two substances known as lævulose (which turns a beam of light if passed through it to the left) and dextrose (which turns a beam of light to the right). If dextrose is taken by the normal person, sugar will appear in the blood stream, but if lævulose is taken it will immediately be seized upon by the liver and fail to reveal itself in the blood. If therefore, it is suspected that the cause of the jaundice is the imperfect working of the liver, lævulose is administered and the blood is tested. If lævulose is present in the blood-stream it is clear that the liver is not performing its normal function of retaining the lævulose in its tissue and that it is at fault.

"To turn from pathology to pure physiology," Dr. Ryffel continued, "it is of interest to note that the idea that was current some years ago that the percentage of carbon dioxide, *i.e.*, alveolar air, in the innermost recesses of the lungs was absolutely constant has now been abandoned. When violent exercise is taken both lactic acid and carbon dioxide are formed in large quantities in the muscles, and the blood carries the carbon dioxide in large quantities to the lungs for elimination from the system. It is in order that the blood-stream should be brought

back as soon as possible to its normal composition that an athlete will remain out of breath for some time after taking violent exertion.

"The present generation" Dr. Ryffel concluded, "has witnessed many important revolutions in the progress of surgery, and it is not too much to say that except in emergency cases the exploratory operation of the surgeon is now virtually a relic of the past. The aids to accurate diagnosis are daily increasing. X-rays form the most obvious instance of this, but chemical pathology is providing evidence of disordered function that, though indirect, is often as certain in its conclusions as would be the case with direct ocular observation, and the surgeon of to-day takes full advantage of the facilities that the chemist can afford him."

Correspondence.

The Hamilton Medal.

DEAR SIR,—The "Hamilton Medal" of the *Medical Journal of South Africa* has been founded to commemorate the services of the late Dr. Hamilton, founder and first editor of the Journal, and in his time a well-known student of Guy's. He was, I believe, H.-S. to Mr. Lucas—though I am not sure on this point.

Though the Directors have stipulated that papers for competition for the Hamilton and Maynard Essays must be the work of bona fide residents in this country I am sure that there are many Guy's men now resident at Guy's who intend to practise in this country and who may possibly already be engaged in research work which they may afterwards care to publish in the Journal. Further, I am sure that the Directors will sympathetically consider any essay sent in by South African students now at Guy's on such a subject as say, (e) as the opportunities for dealing with it on your side are obviously very much greater than ours here, where industrial hygiene is a novelty.—Yours faithfully,

C. LOUIS LEIPOLDT, *Editor.*

Johannesburg,
South Africa.
31st July, 1924.

The Hamilton Gold Medal will be awarded annually for the best paper published in the *Medical Journal of South Africa*, in each calendar year.

The following are the conditions under which the Medal will be awarded:—

1. The award will be made by the Directors on the recommendation of an Adjudication Committee. The decision of the Directors will be final and irrevocable.

2. In making the award special consideration will be given to originality of ideas, and presentation of new facts and observations. Clarity of expression and style will also be given weight.

3. The author shall be a *bona fide* resident in South Africa.

4. Papers published in the Journal prior to January, 1924, shall be ineligible for the award.

5. Papers published in any other Journal without the consent of the Editor of the *Medical Journal of South Africa* shall be ineligible for the award.

6. The award shall not be made a second time to the same person within a period of five years.

The Maynard Prize Essays.

The directors have decided to offer prizes for the three best essays submitted to them on or before December 31st, 1924, on the following subjects:—

(a) *Dental Caries in Native Children in Kraals and/or in Urban Areas.*

It is particularly desired to obtain reliable data with regard to:

(1) The relative prevalence of dental caries among native children living under Kraal conditions and/or those living in towns and locations;
(2) Pathological conditions ascribable to dental caries.
(3) The influence of diet and other environmental factors on the incidence of caries.

(b) *Frequency of Infestation with and Pathological Conditions due to Intestinal Parasites among Europeans, and/or Natives in South Africa and the Treatment of these Conditions.*

(c) *Surgical Tuberculosis in South Africa and its Treatment.*

(d) *Chronic Diarrhœa: Its Etiology, Pathology and Treatment, with Special Reference to South African Conditions.*

(e) *The Treatment of Industrial Surgical Accidents with Special Reference to Restoration of Functions and Minimising Subsequent Incapacity. An outline of a Practicable plan, which might be adapted by large employers of labour, for best dealing with such accidents, should be included.*

The subjects for 1925 will be:—

(a) Tuberculosis among native races in South Africa. Its incidence pathology, clinical manifestations and proposals for control and treatment.
(b) Carcinoma in South African natives: Pathology and course of disease.
(c) Osteomyelitis as seen in South Africa: Pathology, course of disease and treatment.
(d) The problem of syphilis among South African native races and its control.
(e) The incidence, etiology and treatment of Nephritis in South Africa.

The Directors have decided that the prizes for the essays submitted for the year 1924 shall be as follows:

First Prize	... ...	100 guineas
Second Prize	...	60 guineas
Third Prize	... ...	40 guineas

The prizes will be awarded to the best essays in

any of the above subjects. [For example, the first prize may be given for a paper in subject (a), second in (b), third in (c); or first and second in, say (c) and third in (a); or all in any one subject.]

In addition, the directors have accepted an offer of the Transvaal Chamber of Mines to award a special prize of fifty guineas for the best essay on the subject marked (e) in the list for 1924. Such essays must be submitted to the Editor of the Journal in the manner described below.

The following are the conditions under which the prizes will be awarded:—

1. The awards will be made by the Directors on the recommendation of an Adjudication Committee. The decision of the Directors in making any award will be final and irrevocable.

2. Essays must be submitted prior to the 1st January, 1925. They should be typed in double spacing and bear a *nom de plume* only. A sealed envelope bearing on the outside the *nom de plume*, and containing the name of the author and his full address, must accompany each essay. Essays must be addressed to the Editor of the *Medical Journal of South Africa*, P.O. Box 2879, Johannesburg.

3. To be eligible for award the essays must be based on original research or contain new information, and be by *bona fide* residents in South Africa; there will be no objection to two or more persons collaborating in writing an essay: should they be successful the prizes will be awarded to them jointly. In making the adjudication consideration will also be given to orderly presentation of the subject matter, and to literary merit.

4. Prize essays will become the property of the Journal and the Directors reserve the right to publish any or all of them. If they are not published within a year, permission will be given to the authors to publish them elsewhere. Essays not awarded prizes will be returned to the addresses given by the authors.

5. The Directors reserve the right not to award any or all of the prizes if, in the opinion of the Adjudication Committee, the essays do not reach a standard justifying an award.

6. Full-time employees of the Union Department of Public Health, full-time workers in Research Institutions, shall not be eligible for the award of a prize.

The Directors hope to be able to offer similar prizes year by year.

Review.

Medical.

Epidemic Encephalitis. By ARTHUR J. HALL. Published by Messrs. John Wright & Sons, Ltd., Bristol. *Price* 12*s. net.*

ENCEPHALITIS lethargica, despite its comparatively short life as a clinical entity, has begotten an enormous "literature," a fact which will be apparent to anyone who glances at the bibliography at the end of this volume—the author has succeeded in producing a very conscientious review of theories and data provided by these workers, together with cases of his own experience.

The work is divided into chapters dealing with epidemiology, pathology, clinical studies, requelæ, etc. A clear case for the disease as an entity has been made on clinical and epidemiological grounds, but pathological findings are so conflicting that no conclusions are possible in the present state of knowledge.

Diagnosis is best arrived at from the study of the various clinical manifestations of the disease, the numberless possibilities making any rules impossible—prognosis is dealt with briefly and treatment receives a short candid paragraph.

To the reader who requires a "cut and dried" account of the disease this volume will be of no service, but it provides an excellent summary of the present state of our knowledge of this condition and a good work of reference.

Sport.

United Hospitals Hare & Hounds.

THE opening run of Season 1924—25 will take place on Wednesday, October 1st, at 3.30 p.m., from the "Crown" Hotel, Chislehurst.

The Annual General Meeting will be held afterwards at 4.45 p.m. Dr. H. A. Munro in the chair.

The new Headquarters possess several advantages over the "Bull's Head" Hotel and it is hoped that a good crowd of men will turn out.

Runs throughout the season on Wednesdays, in preparation for the Inter-Hospital Race in March for the Kent-Hughes Cup (Holder's, Guy's).

Trains from London Bridge at 2.5 p.m. and at 2.37 p.m. Tickets, 1s. 6d. return.

Rugby Football.

ON September 20th, the First XV. will play their opening game of the 1924—25 Season against our old friends, Catford Bridge. This year, be it noted, the match will be played at Honor Oak Park, and although it has often been feared that our own ground would prove unsuitable for a match in September owing to the hardness of the turf, no such fears need be entertained this season. Our own experience of sodden golf links, of corn-stooks bowed low, of swamped tennis courts, is confirmation enough.

A great Fixture List has been arranged, but at the moment is not ready for publication. And an

equally great season is expected. J. G. Van Schalkwijk is Captain again, and D. J. Ettles has been elected Hon. Sec. Of the old guard many remain, but we have lost two invaluable forwards in W. D. Doherty and E. M. Fouraker. In their place we want new forwards, hard, strong, and young, with plenty of vim and devil. The back division should be as good as ever. But they are of no use without a real live pack.

Of the new guard one must be dumb at present. It is unwise to raise false hopes and to put one's money on hearsay reputations. There is plenty of room in Guy's XV. for good players. To get there is a most eagerly sought honour. And the player who aspires to carry on the football honours of our famous predecessors will always remember that, having reached the coveted position of a member of Guy's Rugby XV., he has become a player whose play will be watched by countless Rugby men at home and abroad, for Guy's sons are spread all over the world. And though many of them have left Guy's long ago, they still read of their old Hospital's performances, and watch with never failing interest the games played by the Guy's team—the oldest and, may we without undue egotism say, one of the ablest exponents of the Winter games.

Pass List. Hospital Information, etc.

Pass List.

Conjoint Board.

Final Examination.

July, 1924.

Medicine.

H. Maclachlan.
*F. J. Levy.
W. F. Roper.
*G. C. Hughes.
S. F. Durrans.
*J. J. Laws.
*M. H. Jacobs.
*H. Levit.
S. Cieman.
D. S. Huskisson.
*G. H. Pitt.
*C. K. Colwill.
*F. Martin.
*A. Jowell (2).
R. A. Grant.
F. A. Wilson.
J. D. S. Thomas.
A. A. Dalby.
*W. J. Montague.
*L. A. S. Trott.
E. I. Liberman.
*R. G. Williams.
W. G. Roberts.
D. R. Grant.
*H. C. Warner.
*D. S. Todd White.
*J. L. C. C. Walker.
*J. C. G. Dickinson.
H. H. Steadman.

Surgery.

S. Berman.
*M. H. Jacobs.
J. E. Piercey.
*W J. Montague.
F. Marsh.
*L. A. S. Trott.
S. P. Meacock.
*R. G. Williams.
L. F. Beccle.
L. Davies (2).
J. M. Van Schalkwijk.
N. F. C. Burgess.
*H. J. Fuller.
*J. A. F. Denyssen.
*G. A. Martin.
*J. Sellick.
H. M. Worth.
R. M. Jones.
E. H. J. Berry.
*S. A. Leader.
T. M. Fripp.
*J. R. Vermooten.
H. K. Williams.
S. H. Daneel.
H. E. Blake.
J. G. Kingsbury.
G. S. Landon.
J. H. Broadhead.
P. C. Bennison.
A. C. Lysaght.
F. H. K. Knight.
*S. C. M. Davison.
A. C. Hampson.
*I. M. Benjamin.

Midwifery.

S. Berman.
W. F. Roper.
D. S. Huskisson.
L. F. Beccle.
W. G. Sears.
C. L. Froehlich.
F. C. Miller.
R. L. Waterfield.
A. H. Brockbank.
G. R. Ford.
J. R. Ratcliffe.
H. E. Filmer.
T. St. J. H. Silvester.
N. A. Arnold.
R. W. Edwards.
P. C. Cumber.
L. Davies (2).
P. R. T. Becker.
J. M. Van Schalkwijk.
N. F. C. Burgess.
G. Davies.
J. G. Goodman.
M. E. M. Jago.
J. W. Shackle.
T. M. Kellough.
L. J. Barford.
C. L. Worthington.
H. Moore.
J. U. Human.
H. Trafford.
J. Gray.
D. F. Durward.
R. W. Cunningham.
H. Van der Post.

*Are now Qualified.

Society of Apothecaries of London.

August, 1924.

Surgery.

M. Bannounah.
C. W. Warne.

Forensic Medicine.

H. L. Bernstein.

Papers by Guy's Men.

A. Ralph Thomson, Ch.M., F.R.C.S. Some Features of the Elbow Joint.—*Ibid.*, p. 368.

A. Ralph Thomson, M.Ch. Case of Transplantation of the Rectus for Incontinence due to Epispadias.—Proc. Roy. Soc. Med. xvii., 1924, Sec. for the Study of Diseases in Children, p. 54.

Hildred Carlill, M.D. (1) Pains of Tabes Dorsalis persisting throughout, *inter alia,* a Lower Limb which was amputated at the Hip joint in 1910. (2) Pathological Laughter associated with High Blood Pressure in a Woman aged 66.—*Ibid.*, Clinical Sec., p. 38.

A. F. Hurst, M.D., and R. P. Rowlands, M.S. Case of Achalasia of the Cardia relieved by Operation.—*Ibid.*, p. 45.

Herbert French, C.B.E., M.D. (1) Case of Dermatitis Exfoliativa and Generalized Melanoderma. (2) Case of Early Recklinghausen's Disease in a girl aged 10.—*Ibid., p.* 47, 48.

C. Worster-Drought, M.D. (1) Case of Pontine Lesion of Traumatic origin with Alternate Paralysis (approximating to but distinct from Millard-Gubler-Foville Syndrome). (2) Case of Bilateral Facial Paralysis apparently of Traumatic Origin. (3) Case for Diagnosis. *Ibid.*, Sec. of Neurology, p. 56 57.

R. Davies-Colley, C.M.G., M.Ch., F.R.C.S. A Clinical Lecture on Tuberculous Cervical Glands.—*B.M.J.*, 1924, ii., p. 259.

T. G. D. Bonar, M.D., B.S., F.R.C.S. Gastric Function before and after Gastro-Jejunostomy.—*Lancet*, 1924, p. 261.

R. Brooke, L.R.C.P., M.R.C.S. The Sacro-Iliac Joint (with four text figures).—*Journ. Anat.*, lviii., 1924, p. 299.

W. E. Tanner, M.S., F.R.C.S. Chronic Abdominal Symptoms in Women and Certain Genito-Urinary Symptoms in Men.—*Clinical Journal*, July 30th, 1924.

Guy's Hospital Musical Society.

THIS Society has just embarked upon a new season and high hopes are entertained for it being even more successful than the last. The fact that forty members of the Choral Section were present at the first practice on Monday last, September 8th, augurs well for the future. It is proposed to give a concert at the end of November and practices are now being held with that end in view. Sir Edward Elgar's "Banner of St. George" and Parry's "Blest Pair of Sirens," will be rendered by the Choral Section, accompanied by the Orchestra, and the latter will perform several classical numbers.

Following up the success of the "Trial by Jury," the Society is desirous of attempting bigger things, and it is hoped to give performances of a light opera in April of next year.

The keenness and goodwill displayed by the members who come from all departments of the Hospital and intermingle in a glad manner, is very encouraging but it is felt that there are still many nurses and students and members of the administrative staff who could derive pleasure and recreation from the Society's gatherings and help to swell the ranks of the orchestra and chorus. To these a very hearty invitation is extended to join either section. The subscription is only 2s. 6d. per season, and all music is supplied by the Society. Lack of high-class musical technique or of a highly-trained voice does *not* disqualify from membership and should *not* in either case act as a deterrent from joining. Practices are held every Monday. The time and place of meeting is always announced on the notice board in the Colonnade.

C. H. BANKS,
A. B. PLANT,
Hon. Secs.

Blues Committee.

THE Summer Meeting of the Blues Committee will be held in Class Room I. of the Medical School on Wednesday, 24th September, at 12 noon.

Recommendations for the award of Blues and Half-Blues must be in the hands of the Honorary Secretary by 12 noon on the preceding Tuesday.

Agenda—

1. Consideration of Recommendations.
2. Consideration of a motion put forward by the Rowing Club.
3. Election of Honorary Secretary for the ensuing year.
4. Any other business.

JOHN SIMONS, *Hon. Sec.*

Guy's Hospital Club's Union.

Alteration of Rules.

THE Clubs' Union Council suggests that the following alterations and additions should be made to the existing Rules of the Clubs' Union.

RULE 7—

Original Text:—"The Council shall appoint Professional Auditors of their accounts. The Council may also appoint an auditor or auditors of the accounts of the Constituent Institutions."

Suggested Alteration:—"The Council shall appoint Professional Auditors of their accounts. The Council may also appoint a Finance Sub-Committee."

RULE 16—

Original Text:—"Every Student of the Hospital shall be entitled to become a member of the Union on payment of the Annual Subscription, and shall (subject to Rule 21) remain a member so long as he shall continue to pay regularly the annual subscription. The amount of the annual subscription shall be fixed by the Council of the Union. Any change in the amount of this subscription shall affect every subscribing member of the Union, and shall be regarded as an alteration in the Rules (see Rule 23).

"Every Medical Student who joins the Union on entrance to the Hospital and continues to be a subscribing member until the date when he obtains a registrable qualification to practise medicine shall become a life member of the Union without further payment.

"Every Dental Student who joins the Union on entrance to the Hospital and continues to be a subscribing member until the date when he obtains a registrable qualification to practise dentistry, shall become a life member of the Union without further payment, provided that he is not studying for a Medical qualification.

"A member who by reason of his absence from the Hospital for a period exceeding twelve months is permitted by the Council to suspend payment of his subscription temporarily shall not thereby forfeit his right to life membership.

"Any qualified Medical or Dental Practitioner, a former Student of Guy's Hospital previous to the formation of the Club's Union (1891) shall be entitled to become a life member of the Union on payment of five annual subscriptions of 5s. or of a composition fee of one guinea.

"Note:—Life membership of the Union entitles to life membership of all the constituent institutions except the GAZETTE, free copies of which will be presented to members during such a number of years only from the commencement of their membership as they would be required to pay an annual subscription in order to be entitled to life membership."

Suggested Alterations:—

Paragraph 1.—No change.

Insert new paragraph (2) as follows:—"Students, Medical or Dental, who enter the Hospital having completed their pre-clinical studies elsewhere, shall pay an entrance fee equal to the current annual subscription."

Alter existing paragraph 2 to read:—"Every Medical Student who joins the Union on entrance to the Hospital and continues to be a subscribing member until he obtains a registrable qualification to practice

medicine, shall, provided he has paid three annual subscriptions or an equivalent amount in subscriptions and entrance fee, and provided that he is not studying for a dental qualification, become a life member of the Union without further payment."

Alter existing paragraph 3 to read:—"Every Dental Student who joins the Union on entrance to the Hospital and continues to be a subscribing member until the date when he obtains a registrable qualification to practise dentistry, shall, provided he has paid three annual subscriptions, or an equivalent amount in subscriptions and entrance fee, and that he is not studying for a medical qualification, become a life member of the Union without further payment."

Insert new paragraph (4) to read:—"No Student shall become a life member unless he shall have paid three annual subscriptions or an equivalent amount in subscriptions and entrance fee. Students who have obtained a registrable qualification in medicine or dentistry and thereafter proceed to take a registrable qualification in dentistry or medicine shall, provided they have already paid three annual subscriptions, continue to be members during the remainder of their Studentship on payment of half the current annual subscription."

Existing paragraphs 4 and 5, no change.

RULE 24 (New Rule)—

"The Secretary shall call a General Meeting of the Clubs' Union upon receipt of written application from 20 members, or when instructed to do so by the Clubs' Union Council."

S. P. MEACOCK, *Hon. Sec.*

Specialities.

The Pure Lemon Juice Co., Ltd.

123d, Victoria Street, S.W.1.

THE above Company claims to have discovered a new process of bottling lemon juice without fermentation, and yet retaining the vitamins.

This is done in Italy from the finest and ripest lemons and imported to England.

The value of lemon juice is well-known as a blood cleanser and a strengthener of the gastric juices.

It is excellent in all cases of Gout, Rheumatism and allied disorders, also in Catarrh, Influenza, etc.

The lemon juice is sold unsweetened, sugar sweetened, extra sugar sweetened, and honey sweetened, in large or small bottles at moderate prices.

"Recto-Dent."

THE RECTO-DENT SOCIETY, 100, Princes Street, Edinburgh.

RECTO-DENT is a specially prepared powder, which when sprinkled over that part of a denture which comes in contact with the gums and palate, will retain that denture firmly in position for many hours.

It is antiseptic and harmless even if swallowed, and does not spread to other parts of the mouth. It is a valuable remedy for preventing the movements of a loose denture, and is specially useful during the first few weeks a denture is inserted, by helping the patient to overcome the initial awkwardness.

The manufacturers will be pleased to send further particulars to Medical and Dental Men on application to the above address.

"Dorsella" Milk Food.

MESSRS. PRIDEAUX'S PURE CASEIN CO., LTD., Motcombe, Dorset, and 16, Southwark Street, S.E.1.

THE problem as to which is the best Food upon which to bring up a baby by hand is one with which the booklet we have before us deals.

While there are many excellent Foods on the market, few are better than "Dorsella" Milk Food, made by Prideaux's Pure Casein Co., Ltd., of West Country Milk, which retains the valuable vitamins essential for babies or nursing mothers.

"Dorsella" is packed in air-tight tins, thus ensuring its delivery in perfect condition. It does not go sour in sultry weather, and is free from any chemical preservative or solvent.

It will keep fresh for many months and is moderate in price.

We have pleasure in recommending it to our readers.

New Zealand Prepared Cream.

WE have before us a book on Humanised Milk, giving particulars of several systems of artificial feeding for infants.

In particular the New Zealand Cream (Plunket Emulsion) is worthy of attention. Even the most delicate infants can tolerate and digest their proper fat allowance, if it is given to them in this form.

It contains about,

50 per cent. Fats and Oils (2/3rds Animal—over 75 per cent. butter-fat and cod liver oil. 1/3rd Vegetable—mainly peanut oil.

40 per cent. Sugars—mainly dextrose, and a little lactose.

Only 10 per cent. of Water—therefore the preparation, being dry and containing no preservatives, will keep indefinitely.

An ounce of this synthetised Cream is the equivalent to half a pint of milk.

In Dunedin during the years 1918 and 1922 not a single death occurred from gastro-enteritis and diarrhœa among children under two years of age, this Cream being in general use.

Sydney, Melbourne, Tasmania and South Africa also use it largely in all their Baby Clinics and Child Welfare Societies with excellent results.

London has adopted it at the Mothercraft Training Society, 29, Trebovir Road, Earls Court, S.W.5. All Towns would do well to follow its example.

Other recipes for Humanised Milk and details with regard to feeding and care of infants are also given.

Marriages.

CAMPBELL—CHRIMES.—On August 28th, 1924, at Nevin, Carnarvonshire, John Maurice Hardman Campbell, M.D., eldest son of J. E. Campbell, F.R.S., and Mrs. Campbell, of Oxford, to Ethel Mary, second daughter of Captain Chrimes, C.B.E., and Mrs. Chrimes, of Gresford.

JEFFCOCK—GARLAND.—On July 26th, 1924, at Brighton, Charles A. C. Jeffcock, M.A., to Florence Garland (Guy's 1920—1923), both of Brighton.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *September 27th, 1924.* *Number 945*

PASSIM

THERE was once a camel, who had two humps, one before the other. The first hump he had because he was very thirsty, the second because there was nothing to drink. And as he shuffled through the sand, dry and despairing, he met a wise old owl, a particularly wise, old, short-eared Syrian owl, and to him he explained his humps. Said the owl, "Oh, camel, thine 'ears are long, even as the ears of the wild ass of Tibet. Run to yonder oasis and drink of the spring that your thirst may be quenched and your back straightened." The camel looked, but the oasis was far-distant and out of his way, so he thanked the owl and staggered on—and died of thirst.

We offer the above tragedy as an Arabian fable, partly because camels are found in Arabia, and partly because there will be few to challenge its authenticity. The moral is Anglo-Saxon.

It has become a very pleasant Editorial practice at the beginning of each October to welcome the new members of the Hospital and to give them much advice as to the employment of their five years of study, advice which is generally extremely obvious and, so we believe, generally disregarded. Although we make no claims to the wisdom of the short-eared Syrian owl, indeed our passport gives a faithful and life-like description to foreign officials by describing us as "ears normal, chin normal, nose average," and would dispel at once any suspicion of suggesting even the most distant relationship between our readers and the long-eared Tibetan ass, we now proceed to scatter to the hundred new students our largesse of welcome and advice.

That each day is not equally momentous to each man is a regrettable but self-evident fact that betrays, we think, a certain fundamental ignorance of the way to live. It is in keeping with that very foolish maxim, "sufficient unto the day is the evil thereof," which has ruined more homes than drink and has driven German philosophers to say that all life is a curse, and the sooner we rid ourselves of it the better. The man who wakes each morning to the glorious and wonderful fact that he is alive is almost extinct, and by a steady process of retrogression has been replaced by those who seek after leasing and drink Kruschen salts. In consequence of which certain days stand out from the general gloom as particular, bright, epoch-making days, days that cause intense excitement and a rush of blood to the head and are therefore styled "red-letter days." The first of these is the day of a man's birth, which he considers of so much benefit to his friends and relations that he demands thank-offerings from them each year for the rest of his life. Other such days will occur to each of you and will usually be the occasion of some adventure, when you did something for the first time; when you pulled on your first pair of trousers, or first entered your house with a latch-key or made a proposal of marriage for the first time or first went to bed drunk. Each of these you will remember, the last, perhaps, more hazily than the others, as red-letter days, and the rest you will have forgotten as no days at all. And

now you have come to Guy's. This is the one day so far that stands out for you as the commencement of a real epoch. From the time that you sign the register in the Medical School Office you have entered one of the main approaches to the most exacting but beneficent profession. You have set out on a voyage of discovery, a voyage to discover whether your altruistic ideals are possible in a world so cultured that it cannot altogether refute the preface to "The Doctor's Dilemma." Undoubtedly you have ideals. You cannot possibly have decided to enter the Medical Profession with the idea of becoming rich or famous, just as though you were professional heavy-weight pugilists. If you have, recognise your error at once and go away. Many of you will have read in the evening newspapers last week an account of an inquest, which was headed "Doctors who receive no pay." In it appeared the following dialogue between the Coroner and Dr. Roland Fawkes:—

The Coroner: "You receive no pay for making this post-mortem examination and attending this inquest?"

Dr. Roland Fawkes: "No, sir."

The Coroner: "And you work very hard?"

Dr. Roland Fawkes: "Yes, sir—and we have a lot of responsibility."

That short conversation is an epitome of your future career as a doctor. Your work will be hard and responsible and will not be rewarded by a stream of cheques as it might be if you were a business-man or labourer. Have you thought of that? We feel sure that you have and have decided that not only are there better things to earn than money, but that there are few things more ridiculously over-rated. Whenever we place a bank-note and a copy of Homer's Iliads side by side—an unusual occurrence, though Chapman's translation is always on our desk ready for the comparison—we are amazed in thinking how that one ugly piece of paper can be held in greater esteem than the book of seven hundred pieces. Yet that is the case more often than not. A certain amount of money is essential, especially when accounts are rendered with polite but urgent requests in red-ink that lower your spirits for a few minutes by the spell of their red-letter daze. Money will be wanted then, but you will, if you are wise, take it and pass it on quickly, looking for the just reward of your work far above the Mint. You will find it in the gratitude that follows relief from pain or anxiety and if that relief has come in spite of you, but you have done your best, the reward is yours for you have earned it. You may not be a successful surgeon, and nature may have to struggle hard to cure those who come to you as a physician, but if you leave the community, for which you work, happier than you found it, you have achieved everything. And it is so easy. Once you have learned to see everything from the other person's point of view and have discovered that not only are you not the only one that matters, but that actually you are the only one who matters not at all, you are equipped to go out as a "General Practitioner." A certain knowledge of medicine and surgery are useful weapons to take out with you in your fight against unhappiness and disease, but never be misled into thinking that they are the most important. Nature can very well cure most of the diseases that are curable with very little help from you, and in any case your first duty is to prevent them. If every student were sent forth from hospital, not as a doctor weighed down with medicines and an apparatus for producing artificial pneumo-thorax, but as a Missionary armed with a cake of soap and a book on birth-control, the shelves in medical museums would soon be crowded with specimens of rare diseases, and they would be the common diseases of to-day.

But this is not an ideal world and, though we talk of making it safe for posterity, we do not do it. We leave things as we find them, or just a little worse; build sanatoria in the country for consumptives, bred in the crowded cities, and asylums for the shattered nerves destroyed in the pursuit of everyday life. And while this is so you must spend your five years at hospital, preparing yourself to alleviate as best you can sufferings that are largely self-inflicted. Five years is not enough to learn all that is expected of you and you will find much to do that becomes distasteful. The first time you do it you will do so joyfully, later your interest will flag; that particular duty will no longer be an adventure. Here then comes the advice so usual at the beginning of each October.

Do everything each time as though for the first and only time and your work will be crowned with success.

To those Entering the Wards.

By Dr. J. J. CONYBEARE, M.D.

IN entering on your career as a surgical ward clerk you are commencing what is both the easiest and the most difficult part of your medical education. In the pre-clinical period there is no essential difference from the type of education given you at school. One specimen of a chemical salt is very like another and will react in the same way to chemical reagents. In ward work, on the other hand, you will be dealing with human beings and with their diseases, which refuse to conform strictly to type, or to follow out exactly the principles laid down in your text-books. In other words, you will find that in dealing with patients you will be called on, not so much to remember the written or spoken word, as to depend on your own powers of observation and deduction. Hence for those whose education has been merely a form of memory training, ward work will offer new and more complex problems. On the other hand, most of you will find your clinical period easy, because the work is essentially practical and full of a new interest.

The student entering the wards for the first time must realise that he is at last embarking on the portion of the medical curriculum which is going to make or mar him as a medical man. No matter how learned he may be in the intricacies of the preliminary studies, or even of physiology and anatomy, unless he can learn during his period of the ward work how to deal with a patient, he will never make a successful medical practitioner. Above all he must remember that his patients are human beings like himself, and must be treated as such, and not as lay figures for the investigation and demonstration of pathological conditions.

All of you, when you start the appointment of surgical ward clerk, do so with a clean slate. You are making a completely new start and you will be judged primarily not so much on academic distinctions won in the past as on the way you do your work in your routine ward appointments. Very often the man who has shown least promise in the drudgery of the preliminary parts of his training, may, in the end, be discovered to be the most competent. The ultimate object of every medical student must be to render himself capable of undertaking successfully whatever branch of medicine or surgery he may take up. Here let me add a word of warning. Do not enter the wards with any idea that you are going to be a surgeon, a physician, an ear specialist, or orthopædic surgeon, or a general practitioner. When you are qualified there will be ample time to decide what branch of the profession you will enter. If you have passed the Primary Fellowship examination it does not bind you to become a surgeon and, conversely, a failure in that examination does not necessarily mean that surgery may not ultimately be your lot. Your great object in your ward work should be to get a thorough grasp of those guiding principles, which should be the basis of your professional life.

The great boast of our School at Guy's has always been that the training of the student is essentially a practical training. Recently an old Guy's man told me that in his day to have been a dresser at Guy's was always regarded as the equivalent of being house surgeon at other hospitals. Though this at the present time is an overstatement of the facts, the traditions of a practical training are still maintained, in so far as attendance at lectures and classes is not reckoned as virtue in itself, but only as a means to an end. Every dresser and every ward clerk must realise that when he is working, whether at the Out-Patient Department, or in the wards, he has to discharge a double duty, a duty to the patient and a duty to the Hospital. In the reports he writes of his cases he is helping to add a brick to the great edifice of knowledge which is available for all who wish to enter. When he is dressing a septic finger in the back surgery he must realise that upon his care and attention to detail depends perhaps the efficiency of his patient as a wage-earner.

To turn to some more practical considerations, let me urge upon you the importance of punctuality in your attendance. The dresser who turns up late in the back or front surgery is doing his best to disorganise the work of the hospital, and is incidentally throwing extra work on the shoulders of his more con-

scientious colleagues. The dresser who leaves his surgical dressings unattended even for a day is disorganising the work of the nursing staff, who are already sufficiently hard-pressed. The smooth running of the complex machine depends as much on the due fulfilment of the part allotted to dressers and clerks, as on their seniors. Again, always remember that if in doubt there is always someone with more experience than yourself, whose duty it is to help you with his advice. If as a dresser you are not satisfied with the progress of a case you not only can, but must, get the help of your house-surgeon.

Do not allow the bogey of examinations to harass you. Any man who has done the ordinary round of appointments thoroughly and conscientiously cannot help acquiring a sound grasp of the principles and practice of medicine, which should be enough to assure him of being able to face any examiner with equanimity. No amount of reading, attendance at lectures or classes, or coaching, can give him the same feelings of confidence, which are so essential for the final examinations. Moreover, book-learning may be acquired at any time, but you do your ward appointments but once in your lives, and three months wasted may be extraordinarily difficult to make up. Far be it from me to suggest that reading should not be an adjunct to the study of your cases. Every student should have at least one well-recognised text-book on medicine, surgery and gynæcology. To these he may apply for a further elucidation of his cases. Thus, if you see a case of Addison's disease, read up that disease and compare the conditions you have noted with the description of the disease in your text-book. If you do this conscientiously throughout your appointments, you will find at the end that there will be but few diseases of which you have no knowledge. Keep private notes of cases which have struck you as interesting. They need not necessarily be notes of cases which have been under your own care. Your knowledge as a practitioner is bound to be built up on the study of cases you have seen, rather than on books you have read. A few quite brief notes made soon after you have seen a patient will help to impress the case on your memory. If you do this systematically throughout your medical career, you will find that you have produced a text-book which, at any rate to yourself, conveys much more than can be found in any published work. Particularly remember your mistakes. Only by doing so can you avoid a repetition in the future.

Take nothing for granted. Preconceived ideas about a patient, based sometimes on an inaccurate history, sometimes on what someone else has told you, lead more often to a wrong diagnosis than anything else. Try to train your own powers of observation and of sifting and summing up the evidence. After all we are all of us but touching the fringes of knowledge in our dealings with disease, and neither our teachers nor our text-books are infallible. If you do not learn the value of thorough and systematic examination of a patient, while you are a student, you will never do so.

Above all, spend plenty of time in the wards. The Governors of the Hospital throw them open to you from ten in the morning to seven at night with the exception of half an hour from one to one-thirty. At any hour during the day you are entitled to be increasing your fund of clinical experience. Do not be content to listen to a heart murmur for a few brief seconds during the Registrar's round. Make a point of listening to it every day until you really feel confident that you recognise it and will recognise it again. Get your fellow ward clerks or dressers on other firms to take you over their interesting cases, and in return attempt to do the same for them, and do not imagine that because a case is not in one of your own beds that it is not your business to know all about it. Perhaps the most valuable hours to spend in the wards are those between tea and dinner. During this period you can examine cases that have been taught on during the day by the Physician, Surgeon, or Registrar on his rounds. This, too, is the favourite hour for house-officers who have any small operations to perform, such as a tapping of the chest or a lumbar puncture. If you are in the ward you can at least see the operation performed, if not, indeed, be allowed to carry it out yourself.

Remember, too, that you are a unit in a great corporate body; that to some extent at any rate the reputation of the Hospital depends on the way you treat your patients. After a long morning in the Surgery or Out-Patients the best of tempers is apt to become frayed. At such moments try to show the patience and consideration to which any sick person, rich or poor, is entitled.

As a last word of advice, do not allow your professional studies to debar you from taking an active interest in other spheres. A successful medical practitioner must be capable of doing more than diagnosing his patient. He will often find himself called in as a guide, philosopher and friend. For a general practitioner at any rate a knowledge of the world, using the term in its widest sense, is fully as important as professional skill.

Finally, consider your own health. It is unfair both to yourself and to your patients to remain at your work when ill. Not only do you run the risk of imparting to them your own infections, sometimes with disastrous results, but persistent neglect of symptoms on your own part may leave your own health seriously impaired. The great watchwords for every medical student, particularly those of you who live in or near the hospital, should be exercise and fresh air. Make a point of getting exercise on every possible occasion, and whenever you have no duties which necessitate your attendance at the Hospital during a week-end, try to leave the atmosphere of the Borough behind you and go out into the country.

Medical Education in the Pre-Clinical Period.

By PROFESSOR PEMBREY, M.A., M.D., F.R.S.

THERE is little doubt that the pre-clinical period is not the most popular part of medical training, and it is customary to give reasons for its separate existence. In former days when medical students were apprentices and "walked the Hospital," there was a much earlier contact with the sick and the maimed, with the problems of the life's work of a medical man. There are advantages and disadvantages in the changes which have occurred in medical education, but any unbiassed estimate will show that the former far outweigh the latter. The elevation of the status of the surgeon from the position of the barber-surgeon was due to the association of surgery with scientific knowledge, to the acquirement of the wider education and the ideals of a profession rather than the improved technical training of a trade. At the present time medicine is in the front rank of the professions, and the State looks to it more and more for guidance in the questions which affect the well-being of its citizens.

Modern civilisation is so complex and in many respects so unphysiological that a knowledge of health is as necessary as a knowledge of disease. "Only the sick need the physician" is true in the strictest sense, and this wise saying explains the need of Physics, Chemistry, Biology, Anatomy, and Physiology to counteract the narrower outlook of medicine and surgery. The chief advances in clinical knowledge and treatment have their origin in the sciences taught in the pre-clinical period. The maintenance of health and the prevention of disease cannot be studied only in those who have lost their health and are stricken with disease.

At the present time the pre-clinical period may be considered to be divided into two parts: the first for the study of the Preliminary subjects, Chemistry, Physics, and Biology; the second for the Intermediate subjects, Organic Chemistry, Anatomy, Physiology and Pharmacology. This division is determined largely by the regulations of the General Medical Council and the Examining Bodies, but there is no definite agreement upon the position of Chemistry and Physics. The General Medical Council in 1922 ordained that on and after January 1st, 1923, it would only register as medical students those who had passed approved examinations in chemistry and physics. This action tends to displace these subjects in the medical curriculum and relegates them to the secondary school. The advantage of such a course, it is maintained, is to be found in the provision of more time for the more strictly professional subjects, the disadvantage is found in the lower standard of teaching of the secondary schools in comparison with that of the medical schools of the Universities. There is little doubt that the interests of higher education and of medical education especially are served by the retention of chemistry and physics in the curriculum of all the chief medical schools and a further advance would be obtained by the co-ordination of these subjects

with other sections of the curriculum and special teaching of chemistry and physics in relation to their application in the diagnosis and treatment of disease. Life is so complex that all branches of knowledge are needed in any attempt to understand the problems of health and disease. Although chemistry and physics may be called preliminary subjects they cannot be isolated from the other subjects.

Biology has not received due recognition, and the recent action of the Conjoint Board of the Royal Colleges in so far as it lays less stress upon biology is retrograde There is need for more biological teaching and its extension to the later subjects of the curriculum. A wider education does not increase, but diminishes the difficulties of the medical student.

The present system of examinations tends to the isolation of the different sciences and prevents that co-ordination which would increase the interest of the young student in the preliminary subjects.

The Intermediate subjects, Organic Chemistry, Anatomy, Physiology, Histology and Pharmacology will form under the new scheme of the General Medical Council the subjects of the first year of professional education. From the nature of these subjects there is little difficulty in grasping their relationship to medicine, surgery, and midwifery; nevertheless there is a lack of close co-ordination with the clinical subjects. It may be that the belated recognition of Applied Anatomy and Applied Physiology will tend to remove this defect.

Medical education is a compromise, for different men have different ideals and schemes. We may congratulate ourselves that the Medical School of Guy's Hospital has shown its recognition of the importance of the Preliminary and Intermediate subjects by the provision of laboratories adequate for teaching and research, and in a far greater measure than that found in most medical schools has encouraged the co-ordination of the pre-clinical work with clinical teaching and research.

Obituary.

Dr. Edgar Reid.

WE regret to record the death of Dr. Edgar Reid, of 164, St. Helen's Road, Swansea, which occurred in the early hours of Friday morning.

The deceased was in good health up to a week ago, when he poisoned his finger. Septicæmia set in, and eventually caused death.

The late doctor was beloved by all who came in contact with him. One prominent medical man described him as a peacemaker. Whenever there was a little misunderstanding, either personal or public, the parties would consult Dr. Reid, and things would be put right.

He was 59 years of age, and had lived in Swansea practically all his life. He took his degrees at Guy's Hospital in 1894, and was gynæcologist at the Aberavon and Maesteg Hospitals.

During the war he was in charge of the 33rd West Hospital at Cardiff, and there did valuable work.

When he first came to Swansea he entered into partnership with Dr. Latimer, who afterwards left the town. During the years that followed he made many friends, and established a good practice. In later years he specialised in female diseases.

He was a keen sportsman, and Swansea loses one of its best and keenest cricket and Rugby football followers. He was, years ago, considered one of the finest batsmen in the Glamorgan County. He captained Swansea and Guy's Hospital, and was the runner-up of the Welsh Amateur Championship at Golf. He also played three-quarter back for Guy's and the All Whites. He founded the Pennard Golf Club, and was captain and secretary since its commencement.

The deceased leaves a widow and a daughter Mrs. Islitt. His only son was killed during the war.

Walter Hamilton Acland Jacobson.

IT is with great regret that we announce the death of Mr. W. H. A. Jacobson, one of the Consulting Surgeons of the Hospital, who passed away on September 14th. We hope to publish an appreciation of his life and work in our next number.

Bicentenary Appeal.

ALTHOUGH this number of the GAZETTE is chiefly devoted to welcoming newcomers to Guy's, it must be remembered that the Bicentenary Appeal affects them as much as it affects all Guy's men. They have joined the Hospital at a time when it is about to celebrate its 200th Birthday.

On other pages they will read many valuable words of wisdom and advice, which if they are wise they will follow. They will read also brief outlines of the work of this great Hospital which they have been fortunate enough to join. They cannot fail to be greatly impressed by this new home where they find themselves, but it will no doubt take them some time to realise what Guy's Hospital really means, what a complete little world is contained within its boundaries and to appreciate the significance of the steady growth and progress that has taken place during these last 200 years. Guy's Hospital in its 200 years has achieved a world-wide reputation.

That such progress has only been made possible by the hard work of our physicians, surgeons and other members of the Staff through their ceaseless efforts in research, treatment and teaching is apparent to all. The magnificent standard of efficiency which has always been so closely associated with Guy's is known throughout the world, but how many stop to think how it has been possible to do this!

No great institution like Guy's can possibly exist without involving an enormous expenditure of money. It is true that for years those who follow the finance of hospitals and other charities have recorded their praise of the economical administration of the Hospital. Many years ago the Right Hon. William E. Gladstone, one of the greatest Chancellors of the Exchequer, said, "I rejoice to find, upon the best examination I am able to make, that Guy's Hospital is distinguished among sister institutions by the vigilant economy of its administration, so that it affords to all contributors the best guarantee for attaining through their contributions a maximum of good." This is true to-day, and an examination of the Statistical Report of the King Edward's Fund for Hospitals will confirm this testimony. This does not mean, however, that money is not urgently needed. For the first hundred years Thomas Guy left his Hospital amply endowed, but the time came when the endowment, which had been sufficient for the needs of that time, was quite inadequate to provide for the needs of an institution, which ever continued to grow.

Perhaps this is easier to realise when one knows that originally the Hospital cost Thomas Guy £14,000 to build, but that since his death nearly half a million pounds have been spent in extensions and renovations.

In consequence of this and in spite of the many generous benefactors of the Hospital, we now find ourselves at our 200th Anniversary in debt to the amount of £200,000.

All Guy's men, new and old, are justly proud of their great Hospital. They love to compare Guy's with other hospitals, they love to boast quietly that they are Guy's men, knowing full well the meaning of that great word, but it is rarely they are asked to put their love of Guy's to a practical test.

They are asked to do that now. Guy's wants money, and surely on this perhaps only occasion in their lives it is not too much to ask everyone to help to their utmost to give and to collect all they possibly can.

Special Notice to all Students.

THERE will be a General Meeting of all Students of the Hospital, Medical and Dental, on Monday, October 6th, at 1.45 p.m. in the Physiological Theatre. Mr. Whitbread, the Treasurer, has very kindly consented to be present and he will address the meeting.

The object of the meeting is briefly to acquaint all students with the causes of the Appeal, and to show in what way every one can help.

At a time like the present it is possible for every individual student to help his Hospital, and it is earnestly hoped that all students will make a special endeavour to be present.

In order that this meeting may not interfere with any Lectures or Rounds, the Treasurer hopes that members of the Staff will be kind enough to postpone all such Lectures, Rounds

and Operations until 2.30 p.m. on that day. This will grant every facility for students to be present, and members of the Staff are cordially invited to be present also.

It is hoped that this meeting will be entirely representative of every department of the Hospital and that the Treasurer will be accorded a full and enthusiastic attendance.

Guy's Hospital Clubs' Union.

THE formation of the Clubs' Union, by the amalgamation of the various constitutent institutions, took place in the summer of 1891. The objects of the amalgamation were to further the interests of the clubs and societies existing at the Hospital by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription (see Clubs' Union Year Book) to the Clubs' Union, any student of the Hospital can obtain the privilege of membership of the constituent institutions.

The Union comprises the following Constituent Institutions:—Association Football Club, Athletic Club, Cricket Club, Debating Society, Dental Society, Gazette, Golf Society, Hockey Club, Lawn Tennis Club, Gymnasium, Physical Society, Rifle Association, Rowing Club, Rugby Football Club, Students' Club, and Swimming Club.

On joining the Union a Student is entitled to take part in the activities of any of the above Constituent Institutions. The ground of the Clubs' Union is under the control of the Council, is situated close to Honor Oak Park Station on the Southern Railway, Brighton Section, and to Crofton Park Station on the Brighton Railway, South Eastern Section. It is nine acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. A Fives Court, under the management of the Students' Club, is situated behind the Nurses' Home near the Swimming Bath, and arrangements are made for classes in boxing, fencing and gymnastics in the Pavy Gymnasium. The Rowing Club is affiliated to the London Rowing Club at Putney, and members are entitled to all the advantages of that Club. Meetings of the Debating, Dental, and Physical Societies are held from time to time in the College.

The membership subscription of the Union is five guineas per annum.

Extensive alterations have been carried out in the Students' Club to provide greater accommodation and comfort for the members, and are dealt with in a separate paragraph on the Students' Club.

At Honor Oak Park a new Stand has been erected to seat 800 people, so that now with the two existing small stands there is seating accommodation for 1,000 people. It is hoped that improvements to the Pavilion will be commenced shortly.

As any student can see, these alterations in themselves necessitate an increase in the membership subscription. The Utopian ideal of a new Students' Club may even yet be realised in the future, thus adding another burden to the finances of the Union.

Membership cards are issued entitling the holders to the privileges of membership of each of the Constituent Institutions.

New members should consult the notice boards in the Colonnade for information as to the activities of the various Clubs.

An excellent programme of home matches has been arranged by the Rugby Football Club (*vide* Fixture Cards), and it should be noted that free admission to the ground during matches at Honor Oak Park is granted only to members of the Union on production of their membership cards.

Students' Club.

The premises of the Club include the Smoking and Reading Rooms and the Dining Hall, in the College.

All three rooms have recently been redecorated, and, in addition, alterations have been carried out in the Dining Hall and the Smoking Room. It is hoped in this way not only to increase the accommodation, but also to expedite the service during meal times.

In the Reading Room the periodical cases have been renovated and the paper stands have been brought up from the Smoking Room, where they used to be in a state of decay.

A good supply of papers and periodicals is now maintained, and it is hoped that all members of the Club will assist the Committee by themselves seeing that the periodicals, etc., are kept in good order. The taking of periodicals out of these cases or the removal of papers from the Reading Room throws a lot of extra work on to the Librarian, and members ought not to expect the Committee to keep up a constant supply of papers if these are continually removed as soon as they are placed in the Reading Room.

The Library in the Reading Room has also been thoroughly re-arranged. A new catalogue has been made, and can be inspected at any time.

Notices are posted in the Reading Room stating the regulations of the Library, and students should avail themselves of this opportunity of a good supply of general literature which for once has no connection whatever with medicine.

Through the Library, books may also be obtained from Mudie's Library.

The attention of all members is drawn to Rule 20 of the Clubs' Union:—

"Every member whose subscription is more than one month in arrear shall be suspended from the privileges of membership, and his name shall be posted in the Students' Club. After two months' default he shall cease to be a member of the Union, and shall not be re-admitted without the consent of the Council, who shall, if they think fit, impose a fine of five shillings upon his re-admission."

A list will shortly be posted in the Students' Club of members who have failed to comply with the rules, and the Secretaries of Constituent Institutions will be notified that the members named are not entitled to the privileges of the Union until their subscriptions have been paid.

S. P. MEACOCK,
Hon. Sec., Clubs' Union.

Influenza.

Clinical Lecture delivered by Dr. J. J. CONYBEARE, M.D.

GENTLEMEN,—The history of the great influenza pandemic which started in 1918 is a remarkable example of the fact that in medicine as elsewhere it is easy to forget the lessons of previous years. Ten years ago the term influenza connoted a condition or group of symptoms very different from its significance to-day. Were we, however, to go back some thirty years opinions on influenza would be found not to differ materially from those of the present time.

Influenza, indeed, goes back into the remote past. It is always with us in one form or another, but it is only once in a generation that its prevalence and its virulence become sufficiently alarming to produce a profound impression on the minds both of medical men and laymen. Between these epidemic periods, or perhaps pandemics is a truer description of them, we accept influenza as a necessary annoyance, rather than an all-devouring scourge. Strangely enough though the older among us can recollect previous pandemics, the nature of the disease when it arises in pandemic form has always been missed. Thus, though every medical man in practice must have made a diagnosis of influenza many times during the twenty years before 1918, yet when the disease appeared in true earnest in that year it was not immediately recognised.

During the last half-century there have been two great pandemics of influenza, that which broke out in 1889 and the last pandemic in 1918. How many lives were cut short by these twe epidemics it is impossible to estimate. Some idea of the damage may be obtained when it is remembered that in the height of the epidemic among the British troops in France there were nearly a thousand deaths a week. At the same time in England the death rate among the civil population rose in some urban districts to over 90 per 1000. But even these figures give but a scanty indication of the wholesale slaughter that was going on among the hordes of Orientals. For some weeks the deaths in Bombay were so numerous that it was impossible to obtain sufficient fuel to burn the corpses. Throughout India the epidemic raged no less virulently. A British officer who travelled through Northern Persia in 1919 informed me that in village after village there were no survivors.

What causes underlie these periodical outbursts of influenza? Naturally the epidemic of 1918 and 1919 was attributed to the war and the privations which the war had imposed on all the belligerent countries. Such a theory will not, however, bear investigation. In the first place the disease was world-wide in its incidence, and was more severe and widespread in the crowded Orient than in England or among the European belligerents. Secondly, it did not attack so much the debilitated, the young children or the very old, as those in the prime of life. During the war the soldier in all countries was well-fed and yet the disease was no less common or severe among the troops than the civilian population.

Though there is no satisfactory explanation to account for the exacerbations of influenza at certain periods, there are comparable examples of waxing and waning virulence among the infectious diseases. Scarlet fever is, perhaps, the most striking example. In the last sixty years the mortality from this disease has been diminished by some 90 per cent., and at the same time the general incidence of cases has fallen tremendously. The same thing applies to all microbic diseases to a less extent. For no accountable reason a disease may be widespread and severe for a period of years and then gradually change its character. In the case of influenza this variation in severity is rendered more striking by the fact that the mild sporadic or local epidemics which occur from year to year are of such short duration and of so low a virulence that they are passed over without notice. On the other hand, the pandemics of the disease are so widespread and so terrible in their effects that they leave a lasting impression on all who pass through them. At the present moment the memory of the great epidemic of 1918 is beginning to grow dim and we are again accustoming ourselves to the pre-war view of influenza as a mild febrile attack of no particular significance.

Obviously the whole problem of epidemics is capable of two explanations: the seed and the soil. For a big epidemic both these factors

are necessary. There must be a virulent organism as the seed, and a susceptible population as the soil. All bacteriologists are familiar with the variations in virulence that may be undergone by a strain of micro-organism. A streptococcus grown in culture may be innocuous if injected into an animal. If the same micro-organism is passed through a series of animals it may rapidly acquire a virulence which renders it able to destroy life in even the most minute dose. Possibly then it may be that this fact has a bearing on the causes of influenza epidemics. The causal organism may for some obscure reason take on an increased virulence. The other factor is the provision of a suitable soil, the susceptible population. Here, again, in other epidemics we can see quite clearly the importance of the soil in determining the virulence of an epidemic. Perhaps the most striking example of this was an epidemic of measles in a small island off the west coast of Scotland some years ago. The population was exclusively fishermen and their families who mixed little with strangers from the mainland, and who had been free for many years from measles. This disease was introduced by a visitor with the most dire results. Not only was the incidence extremely high, but the severity of the cases was extreme, so much so that a disease usually mild attained a case mortality of over 50 per cent. In the case of influenza epidemics probably both these factors must play a part. The fact that the great pandemics do not usually occur more than once in about thirty or forty years suggests that time has to be allowed for a non-immune population to grow up. Also in the last epidemic the disease was particularly common and severe among the young adults who had not experienced the epidemic of 1889.

The influenza epidemic of 1918 was heralded by sporadic outbreaks of illness during the years 1915 and 1916, the full significance of which were not noted at the time. Similarly, shortly before the outbreak of influenza in 1889 there were obscure epidemics in various localities in the North of England, which in the light of after-events proved to be forerunners of the great epidemic. At Aldershot in 1915 and 1916 cases of pneumonia occurred in considerable numbers, which did not conform clinically or pathologically to the usual types of either broncho or lobar pneumonia. This disease which was occurring not only in the Aldershot command, but also among the troops in France, was described as "purulent bronchitis" and was attended by a very high mortality. Eventually after bacteriological investigations by Dr. Eyre it was shown to be due to infection by a combination of the Influenza Bacillus and a streptococcus or pneumococcus. Even then it was not realised that these outbreaks were to be precursors of a great pandemic of influenza.

In dealing with the bacteriology of influenza no one but a bacteriologist can afford to be dogmatic. By the end of the epidemic, although an enormous literature on the bacteriology of the disease had grown up, there was no concensus of opinion among bacteriologists. The views put forward fall roughly into two groups—those in which Pfeiffer's Influenza Bacillus is regarded as the essential causative agent, and those in which other organisms or possibly a filter-passing virus are implicated. The hypothesis of a filter-passing virus has been discredited and perhaps the best established view is that the disease is due to the symbiotic or combined action of several organisms, of which Pfeiffer's Bacillus is one and streptococci or pneumococci the other. One of the difficulties which beset the bacteriologist is that Pfeiffer's bacillus is difficult to grow and tends to die out in cultures very rapidly. Hence the failure to find the organism in many cases. Streptococci were grown in many cases both from blood culture and from the organs after death. In all probability these organisms should be regarded as secondary invaders in tissues that had been damaged by Pfeiffer's bacillus.

Although the influenza epidemic of 1918 probably caused more deaths than even the war, it must not be forgotten that only a small minority of cases were fatal. Dr. Adolphe Abrahams, dealing with soldiers, estimates that some 20 per cent. of cases were "pneumonic" in type, and that only about one-third of these died. In many areas the proportion of cases with serious lung involvement was certainly very much less than 20 per cent. Actually no statistics on the subject can be regarded as in any sense reliable, as the milder cases in the army were not sent to hospital.

Any attempt to describe the clinical features of the disease is rendered difficult owing to the great variation that occurred both in individuals and in different localities. The cases can, however, be roughly divided into the so-

called simple cases and those with pneumonic involvement.

The symptoms in the straightforward simple cases were, on the whole, similar in type to those witnessed in the sporadic influenzal cases, with which we were familiar before the war, and which indeed still occur mainly in the early spring. The most striking features were the rapidity of onset and the remarkable degree of prostration. Headache and pains in the limbs and joints were invariable. The fauces were red and injected, but without any definite tonsillitis. Most of the patients suffered from a hard, hacking cough. The amount and type of sputum varied considerably. In some cases there was practically none, but in others it was considerable in quantity, and often markedly frothy. The temperature usually was high, 103° to 104°, and persisted for from three to five days. There did not appear to be any typical type of temperature. Occasionally a crisis occurred, but in most cases a gradual fall took place. Epistaxis was noted fairly frequently at the onset of the disease. Once the epidemic was established there was but little difficulty in diagnosis. Physical signs were usually absent in the chest. During convalescence a certain amount of debility remained, even where the fever had been of quite short duration.

From the description given of the uncomplicated cases in the epidemic it will be realised that they did not differ in any essential from the febrile attacks so commonly diagnosed as influenza apart from an epidemic. The pneumonic type of case, however, presented a very different picture, which in no way resembled anything that is seen in ordinary times. Although the term pneumonia or influenzal pneumonia was commonly applied to these cases, they were actually septicæmic rather than pneumonic in type, as was proved by the fact that it was possible to grow organisms from blood culture in many cases. Moreover, although the prominent symptoms were often referable to the lungs, other systems were frequently involved. Thus a proportion of cases developed nervous symptoms, while others showed evidence in the urine of an acute nephritis. The line of demarkation between the ordinary type of case and that with influenzal pneumonia was by no means a definite one. Sometimes a patient might be apparently septicæmic from the onset of the disease, but more frequently the "pneumonic" symptoms developed in the course of a few days. These cases were strikingly obvious on a general inspection of the patient as he lay in bed, even though the temperature and pulse chart gave little indication of serious illness. In the fully developed case the most striking feature was the colour of the patient. This ranged from pink in the milder cases to a characteristic heliotrope, lilac, or violet hue in those who were desperately ill. The respiration was very much more rapid than would have been expected from the temperature, the rate frequently rising as high as 60 to the minute; yet in spite of such marked tachypnœa, it was exceptional to see any real respiratory distress, and the patient appeared to lie quite comfortably in bed. The mental condition was very variable. Most of the patients remained quite clear until a few hours before death and were apparently often unaware of the gravity of their condition. In a minority of cases, however, there was a condition of delirium, usually low and muttering, but occasionally more violent. A true meningitis, as judged by the condition of the cerebro-spinal fluid seems never to have occurred.

The temperature charts in the severe influenza cases, as in those of ordinary severity show most marked variations. Some of the most desperate cases at no time rose above 101°, and sometimes died apyrexial. Others ran a remittent temperature, while yet another group had a high, continued pyrexia more reminiscent of lobar pneumonia. The pulse rate on the whole tended to be slow, considering the gravity of the illness, and it remained good in quality until within a few hours of death. In tropical countries the pyrexia was often modified in type by intercurrent malarial attacks. Not infrequently the malarial parasite could be found in the blood. Malarial infection tended to produce a more swinging type of temperature, and the reputation gained by quinine as a therapeutic agent in influenza is probably based on the fact that the drug cut short any malarial attack that might have been superimposed on the disease.

The physical signs in the chest exhibited a very wide range of variation. They were of very little value in forming a judgment as to the severity of the disease or the prognosis. Sometimes nothing could be heard but a few scattered râles and rhonchi; in other cases there were signs of consolidation of considerable areas of lung, occasionally involving a

whole lobe. In fatal cases this variability in the physical signs corresponded to the condition found at autopsy in the lungs. Often in the course of the disease the physical signs underwent considerable change. Patches of bronchial breathing might be heard on one day and absent at the next examination.

In the severe types of the disease there occurred, as might be expected, a number of complications, which, however, were not peculiar to influenza. Thus occasionally suppurative parotitis and femoral thrombosis were seen, both of which conditions occur not infrequently in severe cases of typhoid fever or even ordinary pneumonia. One of the rarer complications was rupture of the rectus abdominis muscle. Actual rupture seems to have been preceded by hæmorrhage into the muscular fibres. Occasionally the formation of an empyema necessitated surgical intervention, though this was comparatively rare. It was found that during and after the waves of epidemic influenza a large number of cases of perinephric abscesses were operated on. In all probability a large proportion of these were sequelæ of the disease.

The relationship of encephalitis lethargica to influenza is interesting. In 1890 during the great influenza pandemic cases of an obscure nervous disease were described in Italy and later in other parts of Europe. This disease was given the name of "nona." From descriptions it would appear to have resembled very closely the condition we now term encephalitis lethargica. The latter disease was first recognised in Vienna in 1917 and became common in England during the next year. Subsequently cases have occurred in considerable numbers, whenever influenza has been prevalent. Although there is no direct evidence that the disease is a manifestation of influenza, the close association between the two diseases is striking.

Autopsies on patients who have died of influenza showed the most prominent changes in the lungs. As might be expected from the variability of the physical signs during life, the post-mortem appearances were extremely variable. Tracheitis and bronchitis were always present. The amount of consolidated lung tissue might vary from small patches of broncho-pneumonia to occasionally complete consolidation of a lobe. Perhaps the most characteristic feature was the amount of hæmorrhage into the lung tissues. Sometimes this was diffuse, but in many cases large solid hæmorrhagic areas were found involving a large part of a lobe. In addition there were usually areas of collapse between the patches of broncho-pneumonia, and occasionally pulmonary infarcts. The kidneys, even in cases where blood and albumen had been found in the urine, showed no marked changes except an excess of blood. In cases where the sphenoidal and other accessory air sinuses have been examined they have been found to be infected.

The results of treatment in a disease such as influenza, which comes in epidemic waves of comparatively short duration, are naturally difficult to estimate. During the last epidemic there were remarkable differences in the virulence of the infection during different waves of the epidemic and in different localities. The enormous number of drugs recommended is sufficient evidence that none of them have any real effect on the course of the disease. One fact appears to stand out: those patients who contracted the disease and persisted in carrying on with their usual vocations tended to develop "pneumonic" symptoms of a severe type. It is, therefore, of extreme importance, at any rate during epidemics in which "pneumonic" cases are common, to insist on patients taking to their beds early. Treatment otherwise can be little more than palliative. The headaches and joint pains are usually relieved by aspirin or phenacetin. There is no evidence that the intravenous injection of antiseptics, such as flavine, have any effect, nor have any attempts at treatment by vaccines or serum been more successful. What appeared to be desperate cases occasionally recovered, but probably more in spite of treatment than because of it. From the extreme cyanosis, which was so characteristic of the severe cases, it might have been expected that the administration of oxygen would have produced some improvement. In practice this does not appear to be the case. Oxygen, especially if given with the Haldane mask, did little beyond adding to the discomfort of the patient; in fact, for those with much cough it was manifestly impossible. We therefore appear to be driven to the somewhat pessimistic conclusion that, except for careful nursing and palliative measures, there is little to be done beyond hoping for the best, and trusting that the patient's own powers of resistance may be sufficient to overcome the infection.

A Case of Congenital Stenosis of the Duodenum.

CONGENITAL stenosis, or atresia of the digestive tract, is a rare condition of obscure origin, usually ending fatally. The cases are very few in which such definite factors as an hypertrophied head of the pancreas or congenital abdominal tumour are found, and other conditions must be sought to account for the abnormality. Such conditions are fœtal intussusception and volvulus, fœtal peritonitis giving rise to bands, and finally an arrest in an early stage of development is presupposed. The same explanation may not be met in all cases, and to suspend judgment and await more evidence seems to be at once the more rational and safer proceeding.

The small intestine is more frequently the site of the obstruction than the large, and there appears to be a predeliction for the region of the ampulla of Vater and the duodenal-jejunal flexure. Atresia is more often met with than stenosis, and this is unfortunate since the former condition is frequently multiple. The length of the occluded portion is variable, but in severe cases the gut may be represented only by a fibrous cord extending from the pylorus to the duodenal-jejunal flexure.

In stenosis a membrane-like fold of mucous membrane is found leaving a small opening which soon becomes occluded (Von Reuss). The position of the common bile-duct is of some importance in the diagnosis; it usually opens into the distal portion of the gut, but may divide the two branches passing to the upper and lower segments respectively.

The diagnosis is only established when the infant begins to take milk, but sometimes, when the bile-duct opens above the obstruction, the passage of dry, clay-like, crumbling stools is very suggestive.

Sooner or later, depending on the nature and site of the obstruction, vomiting takes place after feeding, and finally after every feed, and weight is rapidly lost. There is visible peristalsis of the stomach and small intestine, evacuations of the bowel are infrequent or suppressed and the urine secreted is scanty. The following history is that of a case of duodenal stenosis.

Baby B., weight at birth 8½lbs; labour was uneventful. There were no other children and the first pregnancy ended in a miscarriage. On the first and second days of life nothing untoward was noticed, but on the third day the baby began to vomit after taking the breast. This continued and became aggravated as the milk was secreted in increasing quantities.

Up to the fourth day of life the vomiting had taken place a short but variable time after meals, some feeds being retained and others returned for no apparent reason.

On the fourth day the patient was vomiting within two minutes after taking every meal, this statement being confirmed by observation, the time being less than one minute. The vomited material was noticed to be bile-stained for the first time.

The patient was seen by Dr. Cameron on the fifth day of life. Vomiting after every meal continued; the material vomited being now definitely green in colour, and the weight lost 16 oz. There were no visible peristaltic movements of the small intestine, but the upper left quadrant of the abdomen was full and tympanitic—no incontrovertible peristaltic movements being observed here either. A diagnosis of congenital stenosis of the duodenum was made.

Immediately following a bismuth meal—taken from a bottle with avidity and without vomiting—the patient was X-rayed. The stomach was seen to be large and dilated, there was active peristalsis, but nothing was leaving by the pylorus. Thirty minutes later a second examination showed the stomach, the first part and the proximal half of the second part of the duodenum, to be greatly dilated with one or two opaque spots in the lower part of the duodenum.

Mr. Steward operated the same afternoon, and through a median incision performed a posterior gastro-jejunostomy. There were a few ounces of clear, straw-coloured fluid in the abdominal cavity, but no other evidence of peritonitis. The obstructed area was represented by a somewhat paler condition of the bowel about half an inch long as compared with the engorged and dilated portion above and the collapsed and normal bowel below. The cæcum was mobile and had its usual mesentery.

On account of the grave condition of the patient the meso-colon was left unsutured and the abdomen closed as quickly as possible. Subsequently there was a great and rapid improvement and rectal saline and glucose were given.

On a diet consisting of Nestle's milk and Virol the patient, except for vomiting during the first six days of convalescence, made an uneventful recovery. An X-ray picture following a bismuth meal showed the food leaving by the stoma in fair quantities. A similar report was obtained later from a second X-ray. Patient was discharged on the twenty-fifth day of convalescence weighing 8lbs 5ozs.

Various authorities, with the exception of John Thompson who is guardedly optimistic, agree that the prognosis of this and similar conditions is quite hopeless, though cases with the diagnosis of stenosis reported by West, Norman Moore and Broadbent have lived for years.

These are, however, isolated instances and the majority of cases die in the first three weeks of life, but a pure stenosis tends to live longer and may last as long as seven weeks (Grüneburg). The greater number die of pure inanition, but other possibilities are aspiration, pneumonia, peritonitis and intestinal rupture.

So satisfactory a result in the face of such gloomy authorities is alone sufficient reason for reporting the case, and I am greatly indebted to Dr. Cameron and Mr. Steward for permission to do so.

E. C. SEWARD.

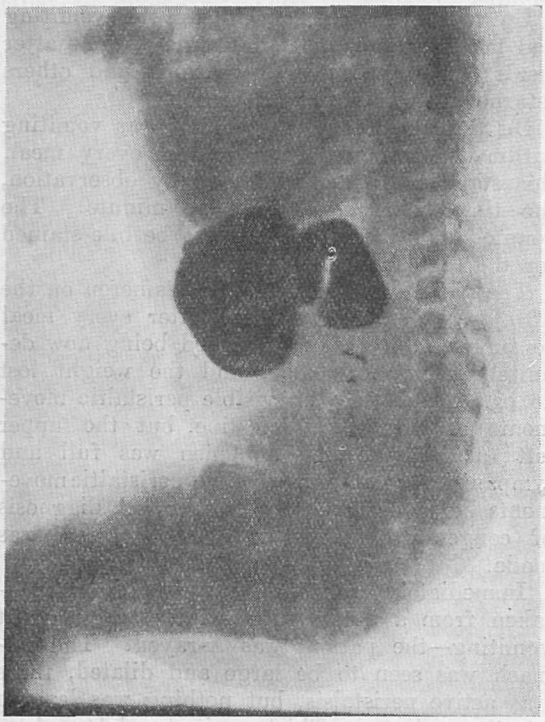


FIG. 1.—Before operation, showing dilated duodenum.

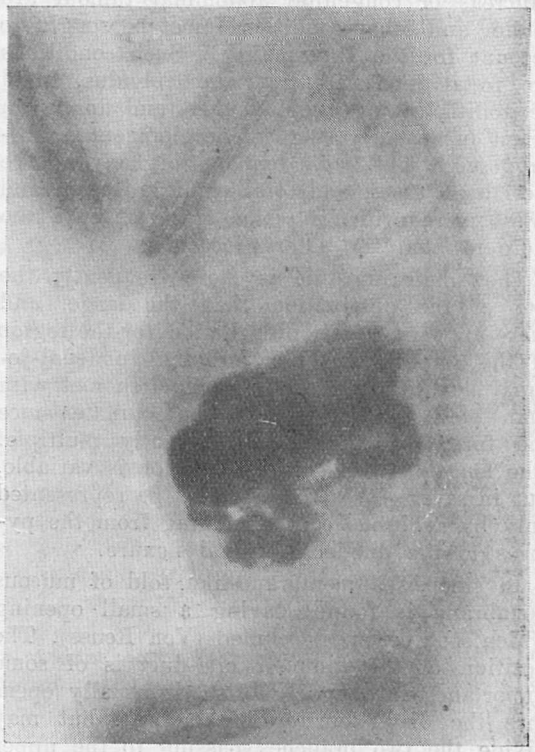


FIG. 2.—After operation. Food leaving by stoma.

Change of Address.

Cyril Lister Curle, Jesmond Dene, Wellington Rd., Bournemouth. 'Phone: 491.

Lieut.-Col. E. C. Hare, Chisbury, The Green Lane, Hucclecote, Gloucester.

R. Howard, The Pleasance, Beaumont Rise, Marlow, Bucks.

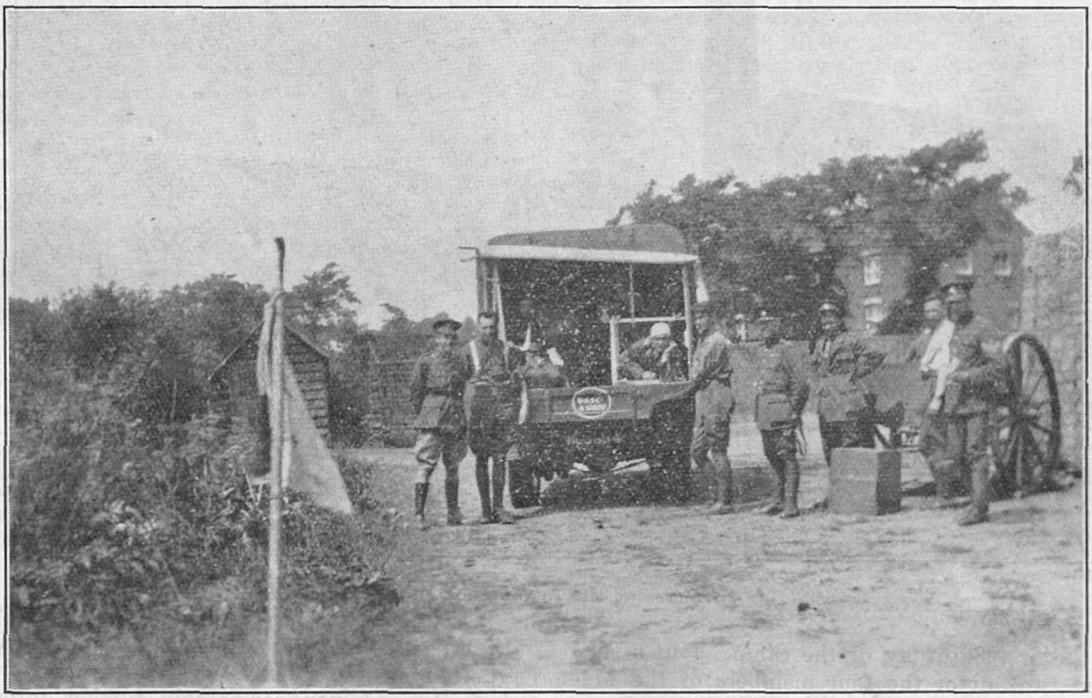
Wm. Norwood East, M.D., Prison Commission, Home Office, Whitehall, S.W.

G. L. L. Lawson, M.R.C.S., L.R.C.P., Rooty Hill, New South Wales, Australia.

University of London O.T.C. Medical Unit.

THE ANNUAL CAMP.

IN all probability, of all the days in this year July 16th is regarded by the inhabitants of Felixstowe as the most memorable, for on that date the Medical Unit of the U.L.O.T.C., which included between thirty and forty Guy's men, together with the Artillery, Engineer and Infantry Units of the Corps, went into camp on Landguard Common, a good camping site within two hundred yards of the sea front.



Arrival of "Wounded" at Advanced Dressing Station.

True to the traditions of the British Army, it took but a single night for them to discover the most pleasant spots in which to while away the evening hours, and after the early morning parade on the 17th one heard the relative merits of the Felix, the Grand, the Pier Pavilion Dance Hall, and the Rogues and Ranelagh Gardens Concert Parties freely discussed.

The work of the Unit was of a varied and interesting nature; each day a party was detailed for riding instruction which took the place of the early morning parade for those in the party. The "Rodeo," as it was known in the camp, was extremely popular and was an innovation which was much appreciated. Lectures on map-reading, hygiene, first aid, water supply, gas warfare, tropical diseases, etc., together with practical demonstrations, were interposed between stretcher drill, tactical schemes and field exercises. A compass night marching competition was held during the second week. The Unit was divided into six parties, of which the two formed by the Guy's section, came in first and second.

During the course of the camp the Unit was inspected by Major-General Gibard, who expressed his satisfaction with the work of the Unit. The inspection took the form of a Field Day, regimental aid-posts, an advanced dressing station, and a main dressing station were established, and wounded men were collected and evacuated by motor ambulances.

At the end of the camp the practical part of the Certificate A Examination was held; 11 members of the section entered for this and all were successful.

Felixstowe afforded ample facilities for sport of all kinds; bathing was excellent and close to the camp, there were tennis courts within half a mile, cricket matches were arranged and golf and sailing could easily be obtained.

The contingent Athletic Sports were held on the first Saturday of the camp. Guy's supplied two out of the four members of the Medical Unit Team which won the Relay Race, and six of the Medical Unit tug-of-war team, which came second. Horton-Parr came second in the 100 yards, while Rees and Barber won the three-legged and sack races. Lacey was unfortunately prevented from arriving in camp in time for the Sports.

The great increase in size of the Guy's section is in itself sufficient evidence that the work of the Unit has only to be experienced to be enjoyed. In 1923 we had only ten men in camp, and were the smallest section. This year we had thirty-four men in camp. We have already had a large number of new recruits since camp, and would take this opportunity of inviting all new comers to the Hospital to join us. No expense is incurred, uniform is supplied free, and camp costs the cadet nothing. The work of the unit is interesting and useful whether one intends to enter the service after qualifying or not, and in addition the unit affords men an opportunity of meeting students from other hospitals which in all probability they would not otherwise get.

Erecting Bivouacs at the Advanced Dressing Station.

Full particulars of parades and lectures will be posted on the O.T.C. notice board in the Colonnade and men can obtain further information by coming to any of these.

NORMAN BURGESS.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

Reviews.

Modern Diagnosis and Treatment of Syphilis, Chancroid and Gonorrhœa. Published by Messrs. Constable & Co., Ltd., London. *Price, 7s. 6d.*

IT is often mentioned of a medical work that it "reads like a novel" (presumably a good one). The same may be said of this one inasmuch as it is full of interest from beginning to end, and is extremely well written.

It is stated to be an attempt to provide busy practitioners with a reliable guide to present day knowledge of venereal disease. Its reliability may be gauged from the fact that its author can probably claim as intimate a knowledge of his subject as any one living.

Syphilis is dealt with to begin with in a most incise and yet comprehensive manner. The opening chapter is devoted to the diagnosis of the disease by laboratory methods and gives the reader a short description of the retinial and uses of the Wassermann and Floculation tests and the comparative values of each in so far as knowledge up to date makes it possible.

Technical details are omitted, to the obvious advantage of the reader. The cerebro-spinal cell count, the globulin estimation, the leutin and colloidal gold test, with their uses are all clearly described.

We should like to join issue with the author on one point in this chapter. In dealing with the provocative effect upon the serum reaction of a dose of an anti-syphilitic substance, he states that although this is denied by some authors it can easily be proved by testing the serum quantitatively each week after commencing treatment. Quite often, he states, in primary cases giving a negative reaction this is converted to a positive, and in those giving a positive the strength of the reaction is increased by the first two or three injections. It is not difficult he says "to find an explanation of the provoked serum reaction if one imagines in the blood an amount of 'Wasserman substance' which is just below that which can be detected by known tests and this is increased to a detectable amount as a result of temporary increased activity of S. pallidum under the stimulus of an anti-syphilitic agent. We maintain that the author is bolstering up this very debatable provocative injection by an entirely false analogy.

It is true that the negative serum of an early case usually becomes positive or a positive more positive during treatment, but if the exact time of the appearance of the positive reaction in such cases be noted it is found that this is invariably about the time that the serum would become positive or more positive as the case may be in an untreated case.

The explanation probably lies in the fact that the initial injections cannot abort the disease and that the immune substance in the blood, provoked by the S. pallida will continue to be developed because the spirochætes are still there.

There is no clinical evidence in these patients of any preliminary depression due to the increase of activity of the spirochætes following the first injections. On the contrary they improve clinically from the very first.

There are many controversial points dealt with in a most interesting manner throughout the book, especially in the section dealing with the treatment and curability of the disease in its various stages. The question of development of late cerebro-spinal syphilis after half-hearted early treatment is also pointed out. One feels that an experienced and judicial mind has been brought to bear on these and other important controversial matter.

A portion of the book is devoted to a necessarily brief description of the clinical aspects of syphilis, both acquired and congenital. The rashes are well described and the "great imitator" carefully differentiated from the common dermatological pitfalls.

Perhaps the most satisfying section is that dealing with treatment. The reader has a reliable guide in this chapter in the selection of drugs, arsenical, mercury and bismuth, a comprehensive list of these preparations being given.

The author gives us a scheme of treatment of syphilis in all its stages, built up of unit courses, he favours, generally speaking, a combination of an arsenical compound with bismuth rather than mercury.

The toxic effects of the various drugs, both immediate and delayed, are described with their treatment and prophylaxis.

Following the section on syphilis is a clear and brief description of chancroid and its treatment.

The latter part of the book is devoted to gonorrhœa and gives the reader just what he desires, a simple and practical description of the treatment of acute and chronic cases; also a full account of the various tests to which all patients should be subjected before they are pronounced cured.

We regard this small, but practical work, as the most generally valuable that the author has given us and we strongly recommend it not only to the busy practitioner, but also to the busy medical student. Let it be remembered that no work, however practical, can replace actual experience and we advise students and practitioners alike to lose no opportunity of visiting a clinic whenever the opportunity avails, to see the work actually carried out.

Papers by Guy's Men.

A. H. Harkness, M.R.C.S., L.R.C.P. Urethritis in the Male. (1) Anterior Urethritis. (2) Posterior Urethritis.—*Clinical Journal*, liii., 1924, pp. 441, 450.

A. Ralph Thompson, Ch.M., F.R.C.S. Some Fractures of the Elbow Joint.—*Journal Anat.*, lviii., 1924., p. 368.

Publications Received.

The Indian Medical Journal, The M.S. Journal, The Burma Medical Times, The Long Island Medical Journal, The Nursing Times, The British Medical Journal, The Hospital Gazette.

Students' Club Library—Catalogue of Books.

Compiled by GEO. A. R. WINSTON, Wills Librarian.

(*Continued*).

COIT, Stanton. A Students Manual of Ethical Philosophy. 1889.
COLLINS, Wilkie. The Woman in White. 1890.
——. The Moonstone. 1890.
COLLINS, William. The Poetical Works of. N.D.
Companions of my Solitude. By the Author of Friends in Council. 1879.
CONINGTON, John. The Æneid of Virgil. 1888.
——. The Poems of Virgil. 1890.
CONYBEARE, Rev. W. G. The Life and Epistles of St. Paul. 1888.
COOK, Captain James. Voyages round the World. N.D.
COOPER, Edward H. Geoffory Hamilton. 2 Vols. 1893.
COTTON, Charles. The Essays of Michael, Seigneur de Montaigne. N.D.
COUPERUS, Louis. Footsteps of Fate. Translated from Dutch, by Clara Bell. 1891.
COVENTRY, Arthur. Steeple-Chasing. 1889.
COWPER, William. The Poetical Works of, with notes and Memoir by John Bruce. N.D.
——. The Works of. By Robert Southey. 1854.
COX, Harding. Coursing. 1892.
CRAVEN, W. G. Racing. 1889.
CRAWFORD, F. Marion. A Roman Singer. 1889.
——. Mr. Isaacs: A Tale of Modern India. 1889.
——. The Three Fates. 3 Vols. 1892.
CREASY, Sir Edward. The Fifteen Decisive Battles of the World, from Marathon to Waterloo. 1887.
CROKER, John William. Boswell's Life of Johnson: Tour to the Hebrides. 1860.
CROMWELL, Oliver, Letters and Speeches, by Thomas Carlyle. N.D.
CUDLIP, Mrs. Pender. Kate Valiant. N.D.

DARWIN, Charles. The Variation of Animals and Plants under Domestication. 2 Vols. 1890.
——. The Descent of Man and Selection in Relation to Sex. 1890.
——. The Expression of the Emotions in Man and Animals. 1890.
——. The Origin of Species, or the Preservation of Favoured Races in the Struggle for Life. 1890.
——. Journal of Research into the Natural History and Geology of the Countries, visited during the Voyage of H.M.S. Beagle round the World. 1890.
——. The Life and Letters of, by Francis Darwin. 3 Vols. 1887.
DAUDET, Alphonse. Tartarin of Tarascon. 1891.
——. Port Salvation, Translated by C. Harry Meltze. 1883.
DAVIES, John Llewellyn. The Republic of Plato, Translated into English. 1890.
DAVIES, G. Christopher. Yachting. 1894.
——. The Handbook to the Rivers and Broads of Norfolk and Suffolk. N.D.
DEFOE, Daniel. The Life, Adventures, Piracies of the famous Captain Singleton. 1887.
——. A Journal of the Plague Year 1665, introduction by Henry Morley. 1888.
DELAND, Margaret. John Wardy, Preacher. 1889.
DENT, C. T. Mountaineering. 1892.
DEVEY, Joseph. The Physical and Metaphysical Works of Lord Bacon. 1891.
DICKENS, Charles, The Life of, by John Forster. 1872.
——. Barnaby Rudge. 1890.
——. Christmas Books and Hard Times. 1891.
——. Dombey and Son. N.D.
——. The Adventures of Oliver Twist, and A Tale of Two Cities. 1890.
——. The Personal History of David Copperfield. 1890.
——. The Old Curiosity Shop. 1890.
——. American Notes: Pictures from Italy: and A Child's History of England. 1891.
——. Bleak House. 1890.
——. Our Mutual Friend. 1891.
——. The Life and Adventures of Nicholas Nickleby. 1890.
——. The Posthumous Papers of the Pickwick Club. 1890.
——. Little Dorrit. 1891.
——. The Life and Adventures of Martin Chuzzlewit. 1890.
DILKE, Rt. Hon. Sir Charles Wentworth. Problems of Greater Britain. 2 Vols. 1890.
DOBSON, Austin. The Journal of a Voyage to Lisbon, by Henry Fielding, with introduction and notes. 1892.
——. Four Frenchwomen. 1893.
DOSTOIFFSKY, Fedor. The Idiot. N.D.
——. Crime and Punishment. N.D.
DOUGHTY, H. M. Summer in Broadland. 1899.
DOWDEN, Edward. Shakespeare: A Critical Study of his Mind and Art. 1889.
DRAPER, John William. History of the Conflict between Religion and Science. 1890.
DRUMMOND, Henry. Natural Law in the Spiritual World. 1890.
DRYDEN, John, The Poetical Works of. 5 Vols. N.D.
DUBOIS, Eug. The Climates of the Geological Past. 1895.
DUFFERIN, Marquis of. Yachting. 1894.
——, Earl of. Letters from High Latitudes, some account of a voyage in 1856 in the schooner "Foam" to Iceland. 1887.
DUMAS, Alexandre. Memoirs of a Physician. N.D.
——. The Vicomte de Bragelonne, or Ten Years Later. N.D.
——. Twenty Years After. N.D.
——. The Count of Monte Christo. N.D.
——. The Three Musketeers. N.D.
DRAPER, John William. A History of the Intellectual Development of Europe. 2 Vols. 1889.

DUNCAN, P. The Students Elements of Geology. 1885.
DYCE, Rev. Alexander. The Works of William Shakespeare. 1886.

Ecce Homo. A Survey of The Life and Work of Jesus Christ. 1890.
ELLIS, Havelock. The Criminal. 1890.
ELIOT, George. Romola. N.D.
——. Middlemarch. 1874.
——. Adam Bede. N.D.
——. Silas Marner. N.D.
——. Felix Holt The Radical. N.D.
——. Scenes of Clerical Life. N.D.
——. The Mill on the Floss. N.D.
——. Daniel Deronda. 1889.
ELWES, R. H. M. The Chief Works of Benedict de Spinoza. 1891.
EMERSON, P. H. Caóbra, The Guerilla Chief. 1897.
English People, A Short History of. 1889.
ERCKMANN, Chatrain (Mm.). Waterloo: A sequel to The Conscript of 1813. N.D.
——. The Conscript: or The Invasion of France.
EWALD, Alex. Charles. The Spectator. 1888.

FALCONER, Wm., The Poetical Works of. 1885.
FARJEON, B. L. A Girl's Young Life. 1892.
——. Toilers of Babylon. 1890.
FARRAR, Rev. Frederic. Eternal Hope. 1888.
FARRAR, Fredk. W. The Life of Christ. 1891.
FAWCETT, Henry, Life of, by Leslie Stephen. 1885.
FIELDING, Henry. The History of Amelia. N.D.
——. The Adventures of Joseph Andrews. 1890.
——. The History of Tom Jones. N.D.
FORSTER, Rt. Hon. William Edward, The Life of, by T. Wemyss Reid. 1888.
FORSTER, John. The Life of Charles Dickens, 1842—1852. 1873.
FRANCE, Joannes F. Preces Veterum. 1887.
FRANZOS, Emil (Translator). The Chief Justice. 1890.
FRASER, Mrs. Alexander. The New Duchess. 1892.
——. Daughters of Belgravia. 1889.
FREEMAN, Edward A. General Sketch of European History. 1891.
——. The Growth of the English Constitution. 1890
FRERE, John Hookham. Aristophanes. A metrical version of the Acharnians, The Knight and the Birds. 1887.
SCHILLER, Frederick, 1825, The Life of, by Thomas Cowper. N.D.
FROUDE, James Anthony. Short Studies of Great Subjects. 1893.
——. Lord Beaconsfield. 4 Vols. 1891.
——. England and Her Colonies. 1887.
FRY, E. N. L. A Scots Thistle. 2 Vols. 1892.
FYFFE, C. A. A History of Modern Europe. 1889.

GALE, Frederick. Cricket. 1888.
GALTON, Francis. Hereditary Genius. 1869.
GARDINER, Bertha Meriton. The French Revolution, 1789—1795. 1892.
GASKELL, Mrs. Cranford and other Tales. 1890.
——. Wives and Daughters. 1890.
——. The Life of Charlotte Bronte. 1888.
GEDDES, Patrick. The Evolution of Sex. N.D.
GEIKIE, Archibald . Text Book of Geology. 1885.
GEORGE, Henry. Progress and Poverty. 1889.
——. Protection of Free Trade. 1890.
GIBBON, Edward. The Decline and fall of the Roman Empire. 4 Vols. 1890.
GIZYCKI, G. Von. A Student's Manual of Ethical Philosophy. 1889.
GOLDSMITH, Oliver, The Poetical Works of, with a Life of the Poet, by the Rev. John Milford. 1884.
GOMME, George Laurence. The Village Community. 1890.
GONCOURT, E. J. de. Sister Philomène. 1890.
GORE-BOOTH, Sir H. W. Whaling. 1895.
GRAHAM, Wm. The Creed of Science. 1884.
GRAVES, Chas. L. The Blarney Ballads. 1888.
GRAY, Maxwell. The Silence of Dean Maitland. 1870.
GRAY, Thomas, The Poetical Works of, with a Life, by the Rev. John Mitford. 1885.
GREEN Thomas Hill. Prolegomena to Ethics. Edited by A. C. Bradley. 1890.
GREEN, John Richard. A Short History of the English People. 1889.
GREENHILL, W. A. Sir Thomas Browne's Religio Medici letter to a Friend—and Christian Novels.
GREG, W. R. Enigmas of Life. 1892.
GREY, Agnes. Wuthering Heights. 1890.
GRIEVE David, The History of. 1813.
GRIFFITH, Cecil (Late Mrs. S. Beckett). Corinthia Mazazion. 3 Vols. 1892.
GROTE, George. A History of Greece. 1869.
GROVE, F. C. Fencing. 1889.
GROVE, Mrs. Lily. Dancing. 1895.
GUYAN, J. M. Education and Heredity. 1891.

HAKE, Ormond. Tobogganing. 1892.
HALIFAX, Samuel. The Works of John Butler. 1894.
HALL, Wm. Poems of a Riper Experience, Devotional, and Reflective. 1921.
HALLAM, Henry. View of the State of Europe during the Middle Ages. 1848.
——. Introduction to the Literature of Europe in the 15th, 16th and 17th Centuries. 1847.
——. The Constitutional History of England from the Accession of Henry VII. to the Death of George II. 1867.
HARDY, Thomas. A Group of Noble Dames. N.D.
——. Tess of the D'Urbervilles. A Pure Woman. N.D.
HARMSWORTH, A. C. Tarpon. 1895.
HARTE, Bret, The Complete Works of. 1890.
HARTLAND, Edwin Sydney. The Science of Fairy Tales. 1891.
HAWTHORNE, Nathaniel. Mosses from an Old Manse. N.D.
——. The Snow Image. N.D.
——. The Scarlet Letter. N.D.
——. The House of the Seven Gables. N.D.
HEATHCOTE, J. M. Tennis. 1890.
——. Skating. 1892.
HEINE, Heinrich. Florentine Nights. 1891.
——. Pictures of Travel, 1822—1826. 1891.
——. The Works of, The Salon, Vol. IV.; Germany, Vol. VI.; French Affairs, Vol. VII., VIII.
HENLEY, W. E. Views and Reviews. 1892.
HENLEY, Wm. Swimming. 1893.

HERBERT, Arthur Stanley. The Hot Springs of New Zealand. 1921.
HERRESHOFF, Lewis. Yachting. 1894.
HERRING, John. A West of England Romance. 1891.
HILL, John. The Common Ancestor. Vol. I. 1894.
——. Treason-Felony. 2 Vols. 1892.
HILLIER, G. Lacy. Cycling. 1889.
HOOD, Thomas, The Poetical Works of. N.D.
HOBBES, Thomas. Leviathan. 1887.
HOGG, James. The Uncollected writings of Thomas de Quincey. 2 Vols. 1890.
HOLMES, Oliver Wendell. Elsie Venner. 1890.

(To be continued.)

Sport.

Rugby Football.

WE are facing the new season with a side very similar to that of last year. It is a great misfortune to lose the services of that great forward leader W. D. Doherty, who has led the Guy's pack for so many years. Another absentee is E. H. Fouraker, who was kept out of the side through the fracture of ribs fairly early last season.

To fill the vacancies are J. Durr, the captain and leader of the forwards at Edinburgh University last season, and W. H. Mybergh of Cape Town University. Mybergh comes with a great reputation as a hooker, and he certainly showed us how to hook with the "A" team at the end of last season.

At scrum half, we are in difficulties as W. Meissner, who filled the position last year will be leaving for South Africa early in the season. At fly half V. Preen is a new comer from Natal, and we are hoping for something pretty good here.

We are well off in the back division, Steyn, Van Schalkwijk, Graham Davies, Finnemore, Mostert and Fellowes-Smith are all available again.

The "A" team look like being quite a good side and it certainly will not be difficult to improve on last season's form. Up to Xmas they looked like being quite a decent side, and they did well to defeat Birmingham University and Bedford Thursday XV., away in one week. After Xmas, the side started to go to pieces, Eckhoff, Baird and Jacobson were often kept out of the side for Hospital duties; Fellowes-Smith, the Captain, was playing for the First XV.; the full back position was filled by a diffierent player every week. The climax of the débâcle came when we revisited Bedford with two "A" team threequarters and one forward.

The singular slackness in training was largely responsible for our loss of the Junior Hospital Cup. In the fortnight preceding the Cup match five or six members trained regularly—the remainder were conspicuous by their absence.

With regard to the Extra "A" XV., the case was very similar. The "A" XV. took their best men and, the members of the "B" XV., who were put up preferred to play with their own side to preserve their unbeaten record, rather than play for the Extra "A" XV. This resulted in the filling up of the team with players from more junior teams. I am not trying to belittle the efforts of these players, for the team did very well in spite of the handicap, but the situation is not worthy of our Club. The "B" XV. preserved their unbeaten record till their last fixture, but only at the expense of the Extra "A" XV.

To criticise the Nomads would indeed be heresy. Embracing all teams, and encouraged by the able leadership of Robinson and Simons and the heavy lunch which precedes the match, they dealt with their opponents in a highly satisfactory manner.

The season's prospects seem pretty good. With J. G. Van Schalkwijk once more captain we are more than satisfied, and I am sure we all wish him and his team every success for this season.

Guy's v. Catford.

THE Hospital opened their 81st season at Honor Oak Park, on Saturday, September 20th, against their old friends and neighbours Catford Bridge. Among the Catford forwards one noticed R. J. Helder and F. G. Hutchinson. The name of Helder has been a household one among the Catford players for very many years, and seldom have we met Catford without a Helder in the pack. Hutchinson is the old Guy's and Kent player.

There were one or two new men in the Guy's side, J. Durr, late Captain of Edinburgh University, and W. L. Mybergh, in the pack and outside half position was taken by V. Preen, who has come to Guy's from Natal. One would have liked to have seen the pack more energetic on Saturday. Although it is the first match of the season we are discussing some players might have reduced their weight to somethng liike playing level. As the season develops Guy's might profitably try out some of their younger forwards and thus improve the pack in pace and keenness.

At the scrum base was Meissner. V. Preen was his partner. If Meissner is likely to leave us why not try someone more likely to become Preen's regular partner?

J. G. Van Schalkwijk should never again leave the threequarter line, he is a threequarter, and a very fine one indeed. On Saturday he was splendid. The first try came from C. L. Steyn, the second also, but it was a fine piece of work by Preen which led up to it. Then came Van Schalkwijk from midfield and beyond with a splendid run through the Catford side, a timely pass to Fellowes-Smith and the last named put on his best pace to score behind the uprights. Steyn added another try before the half-time interval, and Van Schalkwijk converting on one occasion, we led at the interval by 14 points to 3, Catford Bridge having obtained a penalty goal through the agency of F. D. Bartlett.

During the second half tries were obtained by Van Schalkwijk, Preen, Steyn and Graham-Davies. Two of these tries were added to by Van Schalkwijk, so that the final score was 30 points to Guy's; another penalty goal accruing to Catford brought our opponents up to 6 points.

Guy's will have a real good side and their supporters were well pleased with the showing of the team. It is greatly to be hoped that injuries will not deplete our full strength too severely. The

team have a heavy programme in front of them and with a little luck should go down to history as one worthy to be ranked among the best that have represented the Hospital.

G. R. Mostert deputised at full back for P. D. B. Spence, and right worthily did he fulfil that difficult position.

Guy's Team.—G. R. Mostert, G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, C. L. Steyn, W. Meissner, V. Preen, E. E. Neser, B. G. Scholefield, N. M. Holloway, G. G. Cameron, J. Durr, W. L. Mybergh, J. W. Schabort, G. G. T. Tregarthen.

Fixture List of the 1st XV.

Date	Opponents	Ground
1924		
Sept. 20	Catford Bridge	home
„ 27	Coventry	away
Oct. 6	United Services	home
„ 11	Gloucester	away
„ 18	Bristol	away
„ 22	Cambridge University	away
„ 25	Harlequins	home
Nov. 1	Old Blues	home
„ 8	Coventry	home
„ 15	London Scottish	away
„ 22	London Welsh	home
„ 29	Blackheath	home
Dec. 6	Richmond	away
„ 13	Aberavon	home
„ 20	United Services	away
„ 27	Old Alleynians	away
1925		
Jan. 3	Old Merchant Taylors	away
„ 7	Royal Air Force	home
„ 10	Bristol	home
„ 17	Birkenhead Park	home
„ 24	Gloucester	home
„ 28	Cambridge University	home
„ 31		
Feb. 7	Old Leysians	home
„ 14	Devonport Services	away
„ 21	Plymouth Albion	home
„ 28	Birkenhead Park	away
Mar. 7	Rosslyn Park	away
„ 14	London Irish	away
„ 21	Cardiff	away

Association Football Club.

Officers for Season 1924-25.

Captain, L. G. Williams.
Vice-Captain, L. Walters.
Secretary, L. G. Pickett.

WITH the commencement of another football campaign, one should bring to the notice of those of your readers, who are Soccer players, the Guy's Hospital Association Football Club.

Ever since the restarting of hospital football after the war, the Guy's XI. has played a leading part in the Hospital Cup Ties; the Cup has been won on four occasions and in the other year it was only lost in the final tie after two replays.

The Committee now ask for all the new men who play soccer, and the old players to support the Club and help to maintain the fine records of previous years. A list is posted in the Colonnade for the names of all those desiring to play.

With a strong nucleus of players left from last season, together with an infusion of new blood, one confidently looks forward to a very successful season. A strong fixture list has been arranged for two elevens; but if sufficient names are forthcoming with sufficient enthusiasm, one has no doubt but that our energetic Secretary will make Third XI. fixtures as well.

Not everyone can play for the First—in fact only eleven; a fact which is fairly obvious, but not always recognised! And the Committee ask for support for the Second and Third (?) elevens, just as much as for the First.

The first game of the season is a Cup Tie in the Preliminary Round of the Surrey A.F.A. Cup, on October 4th. Practice games will be arranged both before and after that date for everyone who puts his name down on that list in the Colonnade.

United Hospitals Hare & Hounds.

THIS Club, the first meeting of which was held at the King's Head Hotel, Roehampton, on December 9th, 1886, is one of the oldest still in existence, and in its earlier days had considerable status in the Athletic world. This, to a large extent, was due to Mr. W. Kent-Hughes of St. Bart.'s, a member from the beginning, and the donor of the Challenge Cup, for which an Inter-Hospital Race is held each year.

Guy's have always played a big part in the activities of the Club. Their most famous representative was Dr. H. A. Munro, who was the individual winner of the Cup Race in the years 1891, 2, 3, 5, and 6. Dr. Munro is the present President. In those days he was also a member of the Lea Harriers and the London Athletic Club. He gained many successes in the Inter-Hospital Sports and crowned his career by winning the A.A.A. 4 Miles Championship in 1895 in the excellent time of 19 mins. 49 2-5 secs.

In Dr. Munro's time Guy's had a long run of successes, winning the Cup from 1892—1900 inclusive. In 1909 a second period of success began, and for five years we retained the Cup. The mainstays of the team were then J. R. Barrow-Clough and W. Kelsey-Fry, who between them won the individual race from 1909—1913. Mr. Fry is the present Treasurer to the Club.

After the War, the Club was revived by L. G. Housden (Guy's), who was a member of the British Olympic Team in 1920. Once more Guy's men have done a lot to restore the position of the Club and they have carried off the Cup during each of the past four years.

It is hoped this year to complete another sequence of five consecutive wins and for this purpose all men who are at all interested in running are asked to come down to the Opening Run of the Season 1924—5, from the "Crown" Hotel, Chistlehurst. This will take place on Wednesday, October 1st, at 3.30 p.m. Notices will be found in the Colonnade and any further particulars can be obtained from the Hon. Secretary.

The Sciences.

Biology.

THE Biology course is primarily intended to be the student's introduction to the science of medicine, and must be regarded as the study of living things in many forms and from various aspects rather than the accumulation of facts about a number of plants and animals. In other words, it is intended as a training in the acquisition of a point of view rather than a stock of facts. Incidentally, also, the student learns a language which is largely his means of expression afterwards. The practice of the Biological Laboratory should give him a facility in the use of scalpel and scissors and a knowledge of methods of preparation and staining of tissues which are the arts of the Dissecting Room and the Histological Laboratory. Lastly, a thorough acquaintance with the vertebrate types should be a great help to him in obtaining an intelligent knowledge of human anatomy.

Cases of instruments are placed on view which include all those afterwards required in the Dissecting Room. A microscope is needed from the beginning, and the student is warned against buying an instrument which will be a handicap to him throughout his career. The difference in price between a good and a bad instrument is only a few pounds. All second-hand microscopes should be submitted to the Demonstrators for inspection and examination of lenses before the purchase is completed.

Chemistry and Physics.

The student is often tempted to regard the study of Chemistry and Physics as one of very little use when once his preliminary examination is passed; but he will find in his study of the sciences of Physiology, Pharmacology and Pathology that a proper understanding of Chemistry and Physics is invaluable and essential. That this is so, is now fully recognised in the London University curriculum, which should be carefully studied by every London student.

The matriculated student will, in his first year, study Inorganic Chemistry, Physics, and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the lectures and revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic and Applied Chemistry, together with Anatomy and Physiology, and at the end of the second winter, provided, as before, that he has worked steadily from the commencement, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology, and Pharmacology are then taken as the Second Part of this Examination, at the close of the third winter, prior to commencing clinical work in the wards.

From the Conjoint and the Dental student only six months' work is required, but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

The importance of practical work cannot be too greatly emphasised, and lectures and books can but supplement work done in the laboratory. Guy's men have no excuse for neglecting laboratory work. Students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought. "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

Anatomy.

The primary object of dissecting is to render oneself familiar with the structures of human anatomy and their relationships one to another. A good knowledge of human anatomy is essential to the medical student, owing to the great scope for application of this knowledge which is provided by medicine and surgery, and it is no exaggeration to say that the better a man knows his anatomy, the more likely is he to succeed in these subjects. By handling and tracing the structures exposed in dissections, the student is enabled to form mental pictures which greatly exceed in value the plates and diagrams to be found in books, and it cannot be emphasised too much that the knowledge obtained by dissecting is more thorough, more lasting and more definite than the knowledge obtained from text-books, however good the latter may be.

In addition, dissecting trains the fingers and develops the sense of touch, and that delicate muscle sense which is so necessary to aid the eye in carrying out a delicate manipulation.

The basis of anatomical knowledge is a thorough acquaintance with the bones. These can only be learnt by handling the bone and making out each point on it as the description in the book is being read. Hence it is very desirable to possess a half skeleton. (This may be had from Mr. Hancock, the Senior Assistant in the Anatomical Department, who will also supply cases of instruments.)

The man who sits in an easy chair with an open Gray upon his knees and no bones by his side is simply wasting his time.

Men who intend to take the Primary Examination for the Fellowship of the Royal College of Surgeons should attend both the course of lectures for senior students in the second winter session (for times, *vide* notices), and also the special class for the Primary Examination.

Books and Instruments.

The student requires a Manual of Practical Anatomy, in which the structures are described as they are exposed in the course of dissection. The best book for this purpose is Cunningham's Practical Anatomy (3 vols., 12/6 each); it should be read before, during, and after each day's work.

In addition, a text-book of Human Anatomy, in which the subject is described by systems, is necessary. Gray's or Cunningham's Text-Book are both good.

Men who think that they may want to take the Primary Examination for the Fellowship of the Royal College of Surgeons will require a book dealing with Embryology and Morphology, and they will find that Keith's book on the subject contains all that is essential.

The following instruments are necessary:—Three scalpels, two pairs of *dissecting* forceps, and two sets of "hooks." No other instruments are required.

DENTAL STUDENTS.

The detailed knowledge which is demanded of the medical student is essential for the dental student only as regards the head and neck and the bones of the skull. Special demonstrations are arranged each term suitable to the requirements for the L.D.S. and B.D.S. Examinations.

Physiology.

Physiology, which forms the basis upon which scientific medicine, surgery and midwifery rest, will require the most earnest attention on the part of the student during the short space of two years which he can devote to it, and he will find that his understanding of the medical, surgical and pathological problems with which he will meet later on varies directly with the thoroughness of his physiological ground work. Some elementary works on the subject, such as Huxley's *Elementary Lessons* in *Physiology*, or the smaller works by B. Moore and by Foster and Shore, should be read in order to obtain a general knowledge of the scope of the subject.

The student should attend the lectures on Physiology (for times, *vide* notices), and also the tutorial classes which are held by the demonstrators. During this time he should read the subject in some text-book such as Starling's *Principles of Human Physiology*, Halliburton's *Handbook of Physiology*, or Howell's *Text-book of Physiology*. While attending the practical classes held during the winter, the student is advised to read *Practical Physiology* (published by Arnold).

Physiological clinical demonstrations for senior students are held each week.

Candidates for the M.B. of London or other Universities must in addition attend the class in advanced practical physiology held twice a week during the second winter session, and this class should also be attended by men working for the first F.R.C.S. examination.

Those desirous of obtaining a wider knowledge or distinction in the second M.B. examination should supplement the course of reading indicated above with original papers in the *Journal of Physiology*, with parts of Schäfer's *Text-book of Physiology*, *Recent Advances in Physiology and Bio-Chemistry*, edited by L. Hill; *Further Advances in Physiology*, edited by L. Hill; *Principles of General Physiology*, by W. M. Bayliss; and Leathes' *Problems in Animal Metabolism*. Revision classes are held by the Demonstrators during the two months preceding the first F.R.C.S. and the M.B. examinations and should be attended by all candidates.

A special course is held for candidates for the Honours B.Sc. of the University of London.

Pathology.

When the student has passed the Second Conjoint or M.B. Examination he is about half-way through his medical curriculum, and he should have gained a working knowledge of the functions of the body in health. This knowledge is an essential preliminary to the study of the most important of the medical Sciences, viz., Pathology, or the study of the functions of the body in disease. Throughout his life the student, if he continues to study and practise medicine, must ever keep pathology in the foreground. It is desirable, therefore, that the study of pathology be begun as soon as possible and continued throughout a medical career.

The subject is an exceedingly large one and it is customary to divide it into several sections:—

1. General Pathology.
2. Morbid Anatomy.
3. Morbid Histology.
4. Bacteriology.
5. Chemical Pathology.

Due attention must be paid to each of these branches.

During the first three months' work in the wards the study of pathology is commenced. Three mornings weekly are occupied with lectures on the general principles of Pathology and by practical work in Morbid Histology and Bacteriology. Regular attendance at these classes is most desirable, and the attractions of the Wards and clinical work should not be allowed to interfere with the laboratory studies.

Classes and demonstrations in chemical pathology should be attended during the tenure of the post of Medical Ward Clerk.

It is essential that throughout all ward appointments no opportunity should be missed of continuing the study of pathology. Every man should, as far as is practicable, follow out the pathology of each and every one of his cases. Is a bacteriological investigation made? He should follow it as far as possible. Is a portion of tissue removed for microscopical examination? He should see the section. Is a chemical examination demanded? He should try and see the analysis carried out. He should never miss an autopsy on any one of his cases. He should read up each case as he meets it. Set hours cannot be given for these lines of study, they must be fitted in as time and opportunity permit.

Efforts should be made to see as much practical work and as many demonstrations in pathology as can be arranged. There are very few days when no pathology can be learned. Post-mortems are held nearly every day—Monday, Tuesday, Wednesday, Thursday and Friday at 1.30 p.m., and Saturday at 11.30 a.m. Attendance at these will amply repay the time expended.

Informal classes in pathology are held three times weekly during the October and May terms. These, though primarily intended for M.B. students are suitable for and should be attended by those sitting for Part I of the M.B. Cantab. and the Final M.B. of Oxford or London University.

During the later clinical appointments certain students may hold a few pathological posts, such as Student Demonstrator, Assistant to the Demonstrators of Morbid Anatomy, Student Assistant in the Bacteriological Department. One or more of these may be held in turn, and they prove exceedingly valuable from the learners point of view.

There are many books which might be recommended, and what suits one man does not prove at-

tractive to another. MacCallum, "Text Book of Pathology"; Pembrey and Ritchie, "General Pathology"; with Muir and Ritchie, "Manual of Bacteriology," should prove an adequate combination for most purposes. Other books which may suit other tastes and which are good are—Adami, "Principles of Pathology"; Adami and Macrae, "Text-book of Pathology"; Green, "Pathology." For morbid histology Grunbaum "Essentials of Morbid Histology" may be recommended.

When the information in these books proves inadequate, as it is sure to do occasionally, some of the articles in Allbutt and Rolleston "System of Medicine" may be consulted, or references to original papers may be obtained from that work, and from the bibliography in MacCallum, "Text-book of Pathology."

Bacteriology.

Bacteriology, although one of the youngest of the auxiliary sciences, has already made a most profound impression upon the theory and practice of both medicine and surgery, and by providing appropriate and specific treatment for bacterial infections has created the demand for exact as well as accurate diagnosis. Consequently, particular attention is devoted in this class to the technique of the various investigations undertaken in connection with the ward work. The student himself stains sputum, pus, and morbid exudates by various methods to demonstrate the associated bacteria. In addition, he is instructed in the practical work of culture and staining methods, and is encouraged to repeat for himself during the intervals between successive classes any observations and experiments previously carried out, in order that he may be adequately prepared to take advantage of the advanced courses which are available during later years of study, and to equip him for the performance in general practice of those more obvious methods of bacteriological diagnosis, which experience has shown are both reliable and valuable. Demonstrations are also given upon the life history of the various organisms pathogenic to the human race and the changes such organisms undergo or produce when they gain entrance to the human tissues.

Throughout the course considerable stress is laid on the applications of bacteriology to practical diagnosis and treatment, including the use of various remedial agents (serums and vaccines) which have been elaborated in the bacteriological laboratory for the treatment of disease, together with those facts and theories relating to natural and acquired immunity upon which bacteriological therapy is based.

Clinical Chemistry.

A class is held in this subject during the period of first three months medical ward clerk, forming part of the course in pathology. Students are recommended to make an early acquaintance with this subject in order that they may carry out investigations of this nature on their own cases, for which purpose accommodation is provided both in the clinical laboratory and in the laboratory of clinical chemistry.

Medical Wards.

To each medical ward clerk is allotted a certain number of beds, and he is expected to examine, and write full reports on all patients who are admitted into these. Occasionally it so happens that a patient is too ill to be examined except by the house-physician and physician, or that a case dies before the ward clerk has had an opportunity of seeing it. Under these circumstances he should obtain the history, and an account of the symptoms, physical signs, and progress of the case from the house-physician, and should base his report on these data. It cannot be too strongly insisted that a report, however brief, must be written on every case, and it is of the greatest importance that the diagnosis and remarks made by the Physician should be entered at once into the report. Moreover, any errors detected by the Physician or Registrar in the original report should be immediately corrected. In the event of a patient dying the ward clerk must obtain the abstract of the post-mortem findings, and carefully enter it up, and it need hardly be said that all clerks should make every effort to see the post-mortem examination on any case they may have seen during life.

The medical wards are open to clerks from 10 till 12.30 in the morning, and from 1.30 till 6.30 in the evening. The Registrars begin their rounds at 10.30, and by that time a clerk should at least have full notes of the history of any new patient who may have been admitted into one of his beds; and he should have a full report in readiness for the Physician in the afternoon. Ward clerks should realise that they are expected to know the details not only of their own cases, but of every patient under their Physician. It is no excuse to plead ignorance because "this is not my case." If only a clerk will take the trouble to make himself conversant with each case in this way, he will find at the end of his six months that an enormous amount of clinical material has passed through his hands, and he will probably have acquired enough knowledge of medicine to enable him to pass the Conjoint Final with but little additional reading. But so many men waste their time through sheer laziness in the medical wards, never realising that they are throwing away experience which would prove invaluable to them later on.

An hour spent in the wards after tea three or four times a week will give opportunities, not only for going over cases and writing up reports, but also for seeing the house-physician tap chests and abdomens, etc. The treatment, too, which each case is receiving, may well be studied at this time.

With the present shortage of beds, no opportunity of gaining clinical experience should be missed, and many of the most interesting and important medical cases can be seen at Out-Patients. Nothing is more valuable than seeing the new out-patients, writing up their history, examining them and making a diagnosis, before they are seen by the physician.

As regards reading, the best method is to study the text-book account of each disease as one comes across it in the wards or in discussion, and afterwards to compare, if possible, the text-book description with the symptoms and signs presented by the patients. At the same time, the most important medical journals should be read regularly, for by this means only can the student keep himself in touch with modern work. The *B.M.J.* and *The Lancet*, *The Quarterly Journal of Medicine*, as well as the *Journal of the American Medical Association*, are especially recommended.

Books that may be recommended are the following:—The well-known text books by Osler and Dr. Poulton's revised edition of Taylor, "Medical Diagnosis," by Latham and Torrens, and "Auscultation and Percussion," by Gee. For second three months ward clerks the most important monographs in Allbutt's or Osler's "System of Medicine," and Campbell Thomson's "Diseases of the Nervous System," will prove valuable and interesting reading. For laboratory work Hutchinson and Rainey's "Clinical Methods," or Dr. French's book will be useful.

Surgical Wards.

The appointment of surgical ward clerk is the first and in many respects the best of the surgical appointments, held by the student during his clinical curriculum. The appointment is held for three months and each clerk is attached to one of the surgical units, in which it is his duty to record the history and progress of the cases allotted to his care.

The wards are open to the student at 10 o'clock and he should as far as possible examine and report all new cases, before the Registrar of the unit begins his round at half past ten, when each case is further gone over and the report of the clerk confirmed or amplified.

The student during this period will do well to confine most of his attention to the detection of physical signs and should procure from the Medical School Office a copy of the red book, dealing with surgical diagnosis.

During this appointment the student attends a course in elementary pathology and pharmacology. and receives a grounding in the principles of disease and treatment. At the same time he cannot be too strongly recommended to take every advantage of his opportunities to gain an insight into that practical work which will stand him in good stead, not only as a surgical dresser, but throughout his professional career. He should make a point of spending all his available time in the Surgery during "take in" week, and of seeing major and minor operations and even dressings whenever possible.

Two further periods of three months are devoted to the appointments of Surgical Dresser. The work of a dresser is perhaps of more importance at Guy's than at any other hospital, and the advantages to be gained are correspondingly greater. A dresser has only to realise this to prove himself worthy of the trust and reap the benefits.

The most junior clinical student has a definite status in the wards, and he will find his opinion as an anatomist or physiologist treated with the greatest respect. That he should occasionally be called upon to do some of the "dirty work" is inevitable; but no reflection is cast thereby on his standing.

We have only briefly indicated the main points in the work of a surgical dresser. He will receive a copy of the "Standing Orders" relative to this and each other appointment he may hold. The hospital expects, and rightly insists, that he shall pay strict attention to these orders, since he is no longer an irresponsible student, but for the time being one of the cogs in the wheel on whose integrity the smooth running of the hospital depends. With growing knowledge comes growing responsibility, and he must show himself worthy of the trust reposed in him.

Obstetrics and Gynæcology.

After finishing appointments in the medical and surgical wards the student is posted to the Obstetric Department for six months. During the whole of this time he is also attached to the Physician for the Diseases of Children. The Obstetric Dresser is responsible for case-taking in the wards and at Outpatients, assists at operations, and during one month acts as Extern in the Maternity Charity. The Department has twenty-two beds reserved for gynæcological cases and eleven for the reception of cases presenting complications in pregnancy, labour and the puerperium. At present no beds are available for normal labour, but the pressing need for such accommodation is well recognised by the Hospital authorities and will doubtless be met in the near future. As an intervening link between the Obstetric and Children's Departments is the Salomons Centre, in which the health of mothers and infants is fostered by the practice of preventive medicine. The scope of the work done outside the wards is indicated by the fact that 2,283 new patients were recorded at Obstetric Out-Patients, while 2,076 women were attended in confinements in their own homes during 1923.

With this wealth of clinical material it should be possible for every student to obtain a sound knowledge of methods of diagnosis and treatment founded on no small experience. It is, however, recognised by teachers of Gynæcology and Obstetrics that this desideratum is not always attained. It is undoubtedly true that many a young practitioner has to admit a regrettable ignorance of the ailments which afflict his female patients and of the proper management of the pregnant, parturient and lactating woman. And these subjects form the foundation upon which a successful family practice is built. Responsibility for this sad state of affairs hardly rests with the student, but he will do well if he starts his clinical work with the firm determination to avoid the pitfalls that beset his feet. He must realise that practical experience in diseases peculiar to women cannot be acquired in the space of the three months which he will spend in Queen Ward. As he passes from one appointment to another he must resist the tendency to develop the compartmental mind and must endeavour to cultivate a wide outlook on medicine as a whole.

The study of the physiology and pathology of the functions of Woman should be begun at the outset and continued throughout the period of clinical training. The man starting as Surgical Ward Clerk should include among his initial purchases a text-book on Gynæcology, for purposes of reference, and should make a point of attending the lectures of the Obstetric Surgeons. He should also avoid no opportunity of acquiring the "tactus eruditus" so essential to the accurate diagnosis of pelvic disorders; the inherent impossibility of permitting a class of students to examine women patients one after the other renders it imperative that this experience be gained over a considerable period of time.

The study of midwifery he may well leave until he becomes an Obstetric Dresser; the art of the Accoucheur cannot be learnt from books.

The Children's Department.

Physician-in-Charge, Dr. Cameron.

Chief Clinical Assistant, Mr. A. A. Osman.

In-patient accommodation.—Dr. Cameron has under

his care 14 cots in the Children's Ward. On two days in the week, at present on Tuesdays and Thursdays at 2 p.m., Dr. Cameron goes round the ward and gives clinical instruction.

Out-Patient Department.—Children under 10 years of age are seen in the Children's Department at Out-Patients on Mondays, Wednesdays, and Fridays from 9.30 until 1 o'clock. Dr. Cameron attends on Mondays and Fridays at 10 a.m., when clinical instruction is given.

The Salomons Centre for the care of the mothers and children of the Midwifery Charity is now completed.

Medico-Neurological Clinic.

The arrangements for the Medico-Neurological Clinic for the Winter Session are not finally settled, but they will be approximately as follows:—

(1) *Elementary Ward Teaching at 2 p.m.* Tuesday and Friday, Dr. Hurst; Thursday, Dr. Hunt; Monday, Dr. Symonds (Neurological).

(2) *Advanced Ward Teaching for post-graduates only at* 10.30 *a.m.* Tuesday, Dr. Hurst and Dr. Symonds (Neurological); Friday, Dr. Hurst and Dr. Hunt (Medical).

(3) *Clinical Demonstrations at* 12 *noon.* Tuesdays, in turn, Dr. Hurst (Abdominal) and Dr. Hunt (Thoracic). Fridays, in turn, Dr. Hurst or Dr. Hunt with a Surgeon or Specialist (Medico-Surgical), and Dr. Symonds (Neurological).

(4) *Out-Patients.* Medical, Tuesday, Dr. Hunt; Neurological, Wednesday and Saturday, Dr. Symonds.

The Dermatological Department.

Out-Patient Days.—Tuesdays, 9.30 a.m. (children), 10.30 a.m. (adults). Thursday, 9.30 a.m.

Wards. There are three male and three female beds in the Medical Wards for dermatological cases requiring careful supervision or treatment in bed.

Instruction in the diagnosis and treatment of diseases of the skin is given in the Out-Patient Department, and clinical demonstrations on selected cases are held from time to time.

The Department for Venereal Diseases.

The new building, known as Out-Patient Annexe, was opened in July, and contains departments for the treatment of males and females.

The hours have been greatly extended, the Department being open each day from 9 a.m. to 8 p.m. Students may attend for instruction any evening from 5 p.m. to 7 p.m.

When the new building is completed, a theatre will be available for lectures and demonstrations.

The Aural and Laryngological Department.

This Department is organised on the unit system. There are two units, one under the care of Mr. Mollison, the other of Mr. Layton. Patients are seen in the Out-Patient Department, admitted when necessary to the special wards, Ruth and Barnabas, and returned to the Out-Patient Department. This arrangement allows members of each unit to follow up the cases. Mr. Mollison's firm sees out-patients on Tuesdays and Fridays at 11.30 a.m., Mr. Layton's firm on Mondays and Thursdays at 11.30 a.m.

Dressers are appointed to the respective firms, and have every opportunity of becoming expert in the technique of examination of the ear, nose and throat, and of gaining experience in diagnosis and treatment. Large numbers of school children are seen, and about 1,000 minor operations are performed in the Out-Patient Department a year; these include, amongst others, operations for the removal of nasal and aural polypi, and of tonsils and adenoids, and for the lavage of the maxillary antrum; these operations are performed by the dressers under the supervision of the Surgeon or the Clinical Assistant.

Eighteen beds are now allotted to the Department and each firm operates twice a week. Mr. Mollison and Mr. Layton "take-in" during alternate weeks and emergencies are admitted under the care of the firm on duty.

The Ophthalmic Department.

The Ophthalmic Department of the Hospital is in charge of the two Ophthalmic Surgeons and an Assistant Ophthalmic Surgeon. They are helped by three Assistants, two House Surgeons and Dressers. The dressers are appointed four times a year for a period of three months, and assist the Surgeons at Out-Patients and at operations, and are responsible for the recording of the cases both in the wards and at Out-Patients. The Ophthalmic Department is an open field for any student to explore as far as he is willing and able, the amount of clinical work being sufficiently great for him to see all the more ordinary and common diseases of the eye in the space of three months.

The student will soon find that he is quite unable to form any opinion of his own, on an ophthalmic case, until he has mastered the use of the ophthalmoscope and can readily and accurately decide what is the refraction of the eye, and if the "fundus oculi" is healthy and normal. The theory of retinoscopy can be taught and is simple; the practice, however, requires constant application by the student before he can hope to obtain any sort of facility in it. The difficulties are mainly initial ones, and any time and trouble expended in mastering them will well repay any man in after life when he has qualified and is in practice.

The Ophthalmic House Surgeoncy is one of the most important in the Hospital, as the Ophthalmic House Surgeon is not only in charge of the Ophthalmic beds, but also of Ear, Nose, Throat, and Orthopædic beds, so that his experience is wide and his responsibility great.

The Orthopædic Department.

The Orthopædic Department comprises a large out-patient clinic and ten beds devoted to patients suffering from deformity. Out-patients are seen on Monday and Wednesday afternoons, and in the Out-Patient Department the student will meet with every variety of deformity, congenital and acquired. Considerable facilities are afforded for experience in the relief and cure of all chronic diseases of bones, joints, muscles, etc. Instruction in the principles and most modern practice in the use of appliances, plaster technique, and the more useful forms of physio-therapy is given by Mr. Trethowan, the Orthopædic Surgeon, and Mr. Lambrinudi, the Orthopædic Registrar. Numerous operations of a minor nature are done, such as manipulations for stiff and painful joints, correction of mis-shapen and ricketty limbs, correction of scoliosis, and immobilisation of tuberculous joints.

The in-patient beds are devoted to the most serious operative cases, such as extensive tendon transplantations, correction of mal-united fractures, bone-grafting, the making of new joints, etc. Guy's is a pioneer in possessing an excellent workshop for the manufacture of every form of splint and appliance.

It is in the Orthopædic Department that the principles underlying the mechanical disabilities of the limbs and spine are emphasised and their explanation made clear, and the experience to be gained here is invaluable. The great utility of orthopædic surgery has become evident to very many during the war.

The Genito-Urinary Department.

Students acting as Dressers in this Department have excellent opportunities of acquiring knowledge which will be useful to them in actual practice and examinations. Out-patients are seen on Tuesday and Friday afternoons.

There are nine in-patient beds, seven in Cornelius Ward and two in Queen Ward. Students should realise that their attendance at this out-patient department, though not compulsory, is very necessary, as is evidenced by the very advanced state of disease in which some patients arrive for examination.

The Massage Department.

The New Department is now in full working order, and patients are treated between the hours of 2.30 p.m. and 4.30 p.m. on Mondays, Tuesdays, Thursdays and Fridays, and between 9.30 a.m. and 12 a.m. on Wednesdays and Saturdays.

Clinical Demonstrations are given at 2.30 p.m. on Mondays by Dr. Hunt, Physician in Charge, and at 10 a.m. on Wednesdays and Saturdays by Mr. Trethowan, Surgeon in Charge.

The point of interest to Medical Students is to see the work carried out on Patients by Massage and Medical Gymnastics. A large variety of cases are being treated daily which include fractures, stiff joints, dislocations, nerve injuries and disease, lung and heart disease, congenital conditions, and poor development in Children, etc. Students will find interest in following some investigations which are being carried out under the direction of Dr. Hunt, and those who wish to attend in his section of the Hospital should apply to him.

Electrical and Actinotherapeutic Department.

The treatments carried out in this department include the following:—Diathermy, high frequency, the application of the constant, faradic and sinusoidal currents, radiant heat, and static electricity. Treatment by the Finsen and mercury vapour lamps, and radiotherapy.

A large number of cases are treated in the department:—Chronic joint conditions, nerve injuries, wasted muscles, skin diseases, such as ringworm, psoriasis, eczema, and rodent ulcer. There are also a large number of cases of malignant disease undergoing treatment with X-rays and radium.

Dr. Iredell attends in the department daily at 10 a.m. and students desirous of acquiring a knowledge of actinotherapeutic methods should attend at that time.

The Tuberculosis Department.

(Dr. Marshall).

The Tuberculosis Department is a reference department for out-patients suffering from diseases of the chest. The large proportion of the cases are suffering from pulmonary tuberculosis, but there are opportunities of studying almost every variety of chronic pulmonary disease. Of particular interest are cases referred from special departments, such as the Ante-Natal Clinic, showing the influence of pregnancy on pulmonary disease, and the Throat Department, showing the relation between disease of the lungs and lesions of the upper respiratory tract. The department provides opportunities for studying methods of investigation of early and doubtful cases of phthisis, and for observing the effects of treatment. Suitable cases are referred to sanatoria and are kept under observation on their return to home life. Where necessary, special forms of treatment, such as artificial pneumo-thorax are employed in the department.

Patients are seen on Tuesdays and Fridays, at 2 p.m., and on Wednesdays, at 6 p.m.

Practical Pharmacy, Materia Medica, and Dispensing.

One of the many important things all medical students must know is how to write a prescription. It may even be necessary for the majority, when qualified, to be able to dispense the same. All students, therefore, would be well advised to acquire as much knowledge of the subject as they can.

The student is taught, practically, how to dispense the different medicinal preparations; he learns to write prescriptions, due regard being paid to doses and incompatibilities.

The recognition of crude drugs, their active principles and preparations, form part of the course, which is conducted by the Hospital Pharmacist and covers the syllabus of the Practical Pharmacy of the Conjoint, the Intermediate M.B.Lond., and the Third M.B.Camb.

Dental School.

The Dental Student is supplied at the Medical School Office with the Prospectus, Standing Orders, List of Instruments, Calendar, and Clubs' Union Book.

These pamphlets should be carefully read in order that acquaintance may be made with the general arrangements of the school and the scope of the work upon which the students will become engaged.

Notices regarding the time and place of Lectures are to be found posted up at the main entrance of the Dental Department.

Instruments having been purchased at a dental depôt, the student should satisfy himself that he has been supplied with all of those described in the hospital list.

It is inadvisable to purchase instruments before they are required. Instruments for prosthetic work are required for the B.D.S. course at the commencement of the 2nd year, and for the L.D.S. course at the commencement of the 1st year. Clinical instruments are required for the B.D.S. course at the commencement of the 5th year, and for the L.D.S. course at the commencement of the 3rd year.

Among the various depôts at which instruments may be purchased are the following:—Claudius Ash,

Sons & Co., Broad Street, Golden Square, W.C.; Dental Manufacturing Co., Alston House, Newman St., W.; and Cottrell & Co., 15, Charlotte St., W.1.

The course of study for the B.D.S. London covers a period of five years, of which the first year consists of Physics, Inorganic Chemistry, and Biology. The second year is occupied with the study of General and Dental Anatomy, Physiology, Dental Histology, Pharmacology and Dental Prosthetics. The study of these subjects is also continued in the third year, together with Pathology, Bacteriology, and Surgery. Clinical work in the wards, Surgery, Medicine, Anæsthetics, Pathology, and Bacteriology, together with Dressership in the Extraction Rooms; Dental Metallurgy and Dental Prosthetics forms the fourth year's work, and the fifth year is occupied by purely Dental subjects, these being Clinical work in the Conservation Room, Orthodontics, Operative Dental Surgery, and Dental Surgery and Pathology.

L.D.S. students who come under the New Regulations must pass the Pre-Medical Examination in Chemistry and Physics before they can commence their four years' course. Subsequently their first term is devoted to Dental Mechanics and Dental Metallurgy, and it is very important for the student to get a good grounding in the former at this early stage. In the remainder of his first year and the first term of his second year, the student studies Human Anatomy and Physiology in addition to continuing his work in the Dental Mechanics Laboratory. The rest of his second year is occupied by the completion of his training in Dental Mechanics and attendance at the lectures on Dental Anatomy.

Third year students for the L.D.S. commence the clinical courses with a period of probationary work upon the phantom head. The operative course, conducted by a staff demonstrator, is very comprehensive. It includes most of the conservative operations that the student will subsequently be called upon to perform upon patients, namely gold and other fillings, crowns, inlays, and the treatment of devitalized and septic teeth. These operations upon the dummy form an excellent ground work in operative dentistry.

Thereafter the course of work consists in holding and diligently carrying out the work of the following appointments:—Clinical Clerk in the Conservation Room; *Probationary Dressership in the Conservation Room: *Dressership in the Conservation Room; *Dressership in the Children's Department; Dressership in the Ordinary Extraction Room; Dressership in the Gas Extraction Room; Casualty Dressership; Clerk to Anæsthetist.

A student, apart from those holding the post of Assistant Dental House Surgeon or Clinical Assistant, is not allowed to work in the Conservation Room unless he holds one of the appointments marked *.

The time varies, according to whether the course for the B.D.S. or L.D.S. is being taken, at which a student will come into actual contact with Hospital patients, but he should always endeavour to be punctual in his appointments with them. There is nothing more irritating and annoying to a patient than to be kept waiting unnecessarily; it also delays to a very great extent the easy working of the Department. Further, the student should remember that the cultivation of a courteous and gentle manner towards all patients will become in the future probably the greatest asset in his private practice.

Dental students will profit by following the practice of the Special Departments of the Hospital, *e.g.*, Eye, Throat, Ear. They will also have numerous opportunities of observing the more remote effects of dental disorders in the General Wards and Out-Patient Department.

Students in difficulties about their work and needing advice are invited to consult the Dean, Sub-Dean, Resident Dental Officer, or any other member of the Staff, who will be pleased to do what they can to promote the interests of students.

Osteology.

The question of the purchase of bones is always an important one. Millikin & Lawley, in the Strand, make a speciality of supplying the medical student with this part of his equipment.

Books.

The student who wishes to obtain his books at once should not take the first he sees on any particular subject, but would be wise to consult his demonstrators first. Another source of guidance in the selection of one's books are the numerous reviews which appear in every number of the GAZETTE. These should be studied since for the most part they deal with the latest books available on any medical subject, and in themselves furnish information of current interest and value. The number of text-books is very large, and the choice is a difficult matter to the inexperienced. Roughly speaking, second-hand books are very seldom worth anyone's while to buy, chiefly because medical science is progressing so rapidly that new editions are constantly being published.

The number of publishers of books for medical students is great. Messrs. Churchill publish Taylor, Jacobson, Goodhart, Fagge, and many other well-known works. Messrs. Macmillan publish Allbutt, Foster, and a great number of first-year books; Messrs. Longmans, Green & Co., publish the famous Gray's Anatomy. Mr. H. K. Lewis, 136, Gower Street, publishes a number of medical books, and has also a medical circulating library which is valuable to students who wish to see all the latest books. Mr. Murray also publishes many well-known medical books, as also do Smith, Elder & Co., Philip & Son, Cassell & Co., Nisbet & Co., and Baillière Tindall & Cox.

All books can be obtained from Mr. H. H. Grattan, in Borough High Street, who is the "official bookseller" to the Hospital. Many well-known books he can supply over the counter; any others desired he will have in an hour or two.

Birth.

WEBB.—On September 21st, 1924, at 10, Egerton Road, Bexhill-on-Sea, to Dr. and Mrs. Harold Webb, a son.

Marriages.

BRITTAN—SHEPPARD.—On Sept. 20th, 1924, at Holy Trinity Church, Cheltenham, by the Rev. G. Brittan, Vicar of Mayfleet, William Stamford Brittan, L.D.S., R.C.S.Eng., to Kathleen, youngest daughter of Mr. and Mrs. Frederic Sheppard of Wilton House, Cheltenham.

RYDER—SMITH.—On September 11th, 1924, at Emmanuel Congregational Church, Dulwich, S.E.22., Harry Gordon Ryder, L.D.S. (Eng.), son of Eng.-Commander, R.N. and Mrs. J. F. Ryder, of Dulwich, to Ethel Emily, daughter of the late Mr. and Mrs. Elliot Smith, of Honor Oak, S.E.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *October 11th, 1924.* *Number 946*

PASSIM

ONE of the signal successes of our rather uneventful career was the occasion when we dined in Seymore Street and were taken down to dinner by a lady of great beauty and social standing. After the quiet, serious discussions of the College Dining-Room we should have felt ourselves at a conversational disadvantage had we not in a flash of genius realized that success that night lay in making statements that were utterly meaningless and in treating as the greatest of jokes all remarks that we did not understand. Following this plan the evening flew on merry wings as we applauded the choice of "Otto de rose" by Pivé as a favourite cocktail and divorce as the ideal consummation of marriage. Never having been seen trying, we were invited to dances and galas and fun of all descriptions and were feeling so proud and happy when in a moment of expansion we lapsed into the vulgar truth and lost prestige and invitations for ever. With a dazzling smile our partner asked where we were spending the dead London Season. She was going to Biarritz; could we not cancel our engagements and go there too? "Alas, charming lady," we replied, "our engagements admit of no unfaithfulness; we must spend the season at home—in the Borough."

We have never been able to understand our instant banishment from all further part in the evening's entertainment, and, ensconced by cushions before a blazing fire, still feel cold shudders down our spine at the thought of the cold and shapely backs behind which we finished our dinner. We find nothing in the Borough that was missing from Seymore Street, with the possible exception of children, and noticed nothing in Seymore Street that is not in great evidence in the Borough, except the notices, polite but unequivocal, announcing the firm decision of all the house-owners never on any account to be at home to Hawkers, bottles, circulars, and street noises. These seemed to be the only differences; in all other respects the Borough was the richer. In the beauties of nature, in English song-birds, in green grass and trees, aspidistras and fire-side cats we have abundance and could fill Seymore Street with colour and music without in any way depleting our own streets. We even live at the very gates of our Park, while the poor people of the West must ride or walk through the clean, ugly streets to theirs.

It is curious, this disdain of the Borough, as though we in our pride should turn the back on Paddington or the Peabody Buildings. Not that we wish it to be understood that there is no class prejudice in the Borough itself. There is. Any fine day, when the pavement is dry and the younger inhabitants of Sparrick's Row have hit on treasure trove in the form of a piece of white chalk, those same pavements will shriek out their contempt for the more modern apartments of Snowsfields in the repeated words "Peabody Bugholes," combining a challenge to the Peabodyites with an insult to the Medical Officer of Health. Yes, there is class distinction here, but no inherent street-proud ostracism, for Peabodyites and the Sparrickers still meet at their tourneys of "alley-gobs."

Where, then, lies the reason of the Seymore Street contempt? We think it must be in

our simplicity and in the naïvete of our conversations. Walk through the Park in the fashionable luncheon hour and you will greet and be greeted by your friends with the simple word "Hallo," or if you are on less intimate terms, you will ask politely, "How do you do?" while they, at the same time, will ask you how you do and neither will wait for or even expect enlightenment. Pointed questions such as "What do you do?" are never asked, and "What will you have?" is only whispered. We have been passed and told "Hallo" by the same acquaintance five times between the hours of twelve and one, but as such a conversation means so little, why is it not accepted at Seymore Street? It can't be that. What it is we shall know next week, for we are taking our Bicentenary Collecting Book to Seymore Street and, unless we are arrested for being too circular or a street noise, we shall discover in a house-to-house visitation why they do not like us.

We would call the attention of our readers to the Appeal on page 470 on behalf of the Gertrude Pye-Smith Bed Endowment Fund. This is the age of appeal and in the Courts more often than not each one is most deservedly dismissed. This one, we hope, will not be dismissed lightly. Only £180 is still required to complete the Endowment of the Memorial Bed, and what is a hundred and eighty pounds compared to two hundred thousand?

A Case of Fragilitas Ossium with Blue Sclerotics.

THE following example of the rather uncommon condition of multiple fractures with blue sclerotics seems worthy of recording.

J. McD., aged 8 years, has been in hospital several times suffering from fractures. There was no family history obtainable of multiple fractures nor of blue sclerotics. The mother and one of her brothers suffered from fits when they were children, and a brother of her husband was similarly affected. Her own mother had ten children and has been deaf for a good many years. The subject of the present description suffered from bronchitis in infancy and has had two fits, during which she is described as having emitted a peculiar cry; one fit occurred at the age of two years and the other at the age of three years. Apart from this she has been a very healthy child. Her sister is quite normal.

Her fractures up to date are as follows:—

1. While crawling on the floor, broke her right femur at the age of 10 months.

2. At the age of two years broke her right clavicle through falling off a bed.

3. In November, 1921, broke her right tibia and fibula while walking down some steps.

4. After being in bed for about three months was up for about a week and then broke the same bones again, but the mother did not know how it occurred.

5. Broke the left tibia in going down a step a few months later.

6. Admitted into hospital on 2nd May, 1923, six weeks after the last fracture, suffering from a fracture of the right tibia due to slipping on a step.

7. Admitted into hospital on 28th April, 1924, suffering from a fractured right tibia and fibula. Caused through very slight violence.

The X-ray films of the fractures I have dealt with have all been transverse and show little or no greenstick appearance. They have all united in good position in about the average time.

On examination, the child is well-developed, weighing about 4 stone, and is about 46 inches in height. She is of dark complexion and the face is small, the nose being pinched, as if the child suffered from adenoids, but these are not very marked. The complexion is pale, but the mucous membranes have a normal healthy tint. The sclerotics are dark blue in appearance. The head measures about 20 inches in circumference and does not present any particular prominence of the frontal or occipital regions. Above the pinna is a prominent ridge of bone more marked on the right side than on the left. A similar ridge is depicted in John Thompson's work on Diseases of Children, page 720. There is no abnormal laxity of the ligaments. Examination of the heart and other organs shows nothing abnormal. There is no special liability to hæmorrhage.

The question that is worrying the parents now is to try to prevent the occurrence of any more fractures, and special leg irons are being constructed to attempt to guard against any further trouble.

J. ALLAN BERRY.

General Meeting in connection with the Bicentenary Appeal.

ON Monday, October 6th, a crowded meeting was held in the Physiological Theatre with the Treasurer in the chair. After an enthusiastic reception the Chairman, Mr. Whitbread, said :—

I can only say that the very enthusiastic welcome that you have been good enough to afford me this afternoon reminds me of the old story of the Scotchman. When he first heard that very delicate musical instrument the trombone, he is reported to have said: "It is the Lord's mercy that with all that awfu' noise there is no smell with it." (Laughter).

We are all gathered together here this afternoon for a very important purpose. We are all, thank God, Guy's men (hear, hear); you cannot be anything better. What I want to ask you to help me about, and incidentally Guy's Hospital, is this. We want to get a matter of £200,000; a small thing, I am rather ashamed to mention so trifling a sum to you. We want to raise that somehow or other before the end of this year. I want you to help me to prove that the London Hospital is, after all, not the only hospital in London, and I want you to try and show also that my old friend Lord Knutsford is not the only beggar on the beach.

I am quite sure that the money is to be got if we can get at it. I am equally sure that with a story like we have got to tell, a tradition like we have, and the reputation which Guy's Hospital always has possessed, it ought to be got and it will be got. The time is short. Therefore, it is all the more important for everybody to put his back into the job. You are not going to let the old Hospital down, and if only each one of you could somehow or other get hold of £20 between now and the 6th of January, it would be a very good thing and it would mean about £12,000 altogether.

We all know that this Hospital has to go on. We all know that in the whole of its career it has only made one public appeal. We all know that there are very few London hospitals which can say that; and we also all know that there is no London hospital doing better work. That is a fine story with which to go to the public, and I have great hopes that, with the influence that we can command, and with the money which I know is to be got, we shall get it.

Some years ago there was an election for the County Council, and there was a very efficient electoral poster got out: it was in duplicate and it was a full-length portrait of a most awful looking scoundrel—I do not see anything in the least like him here this afternoon. He was in a slouch hat, he was pointing straight out of the picture, and under him was the motto: "It's your money we want." That is the attitude I want you to assume to your friends and relatives and any members of the public you come across. It is not for me to inquire too closely how the money is got as long as the money is forthcoming (laughter) and no cheques are marked "R.D."

You will be able to get Collecting Books (they will be distributed in the Library) and Collecting Cards and Boxes also by inquiring in the Counting-House.

Now I think I have detained you long enough this afternoon. I am going to ask Dr. Fawcett to rub in the few halting and confused remarks that I have made, but what I do want you to believe is that your Governors are interested heart and soul in raising this money and that we should feel it a deplorable thing if a hospital like ours should have any failure in making an appeal which we feel is more than abundantly justified to the public at large. I will ask Dr. Fawcett to say a few words.

Dr. Fawcett: Gentlemen,—We have been very interested in hearing what our Treasurer has said to us to-day, and your acclamations obviously imply that you not only appreciate his presence and what he has said, but that you are willing to do everything you can to help him in the effort to retrieve the fortunes of the Hospital and School.

I am now in my fortieth year at Guy's (applause), and during that long period our staff and students have over and over and over again been to one of the four Treasurers and have asked their advice and help, financially and otherwise; for example, in buying our sports ground at Honor Oak, in providing us with a Students' Club, in doing something to start

a fund, perhaps, for the advancement of medical education; but, whatever it was, no one of those Treasurers has ever failed us. Now our present Treasurer, Mr. Whitbread, comes to us and says he wants our help, and I know we are going to give it, and we are going to give it not only for his own sake (because we are always willing to help him for that without any other reason), but because we recognise the great objective he has in trying to attempt, as I have said, to retrieve the fortunes of our Medical School. We recognise how untiringly he works in maintaining this great charity, in doing everything he can for the welfare of the patients, and in advancing the position of his famous Medical School.

It has always been a happy tradition of our students that whenever they set out to do a thing they put their best foot foremost, and I think we may say with all due modesty that those students have been fairly successful. It does not matter much whether it is one of those competitions for cups that are going round, or whether it is medals or honours at the University, we have, I think, always done our share and got our share of success. Of course, we cannot always be successful, but we are going to do our very best to make this a success on this occasion. Why? Because once a Guy's man, always a Guy's man (applause); because this is a great Guy's occasion, and because it requires an all-round Guy's effort, and one of its best.

There may be some outside who are a little inclined to say: "You take too much upon yourselves. You think too much of yourselves, you sons of Guy's," and to look upon us with a little bit of a jaundiced eye. Well, gentlemen, we do not mind that a bit so long as Guy's keeps on walking and so long as Guy's men keep the love of Guy's in their hearts.

Therefore, we say to our Treasurer—and I may say it, may I not?—that we are going to help him. I hope to see Dr. Wornum inundated with applications for collection books and collection sheets and with an influx of sums, small and great, so that our Treasurer may feel that in the great efforts he is making he is kept cheered by the knowledge that he has all the backing that Guy's students can give him and that, although our motto is *dare quam accipere*, we want on this occasion, and for this occasion only, to be in the position of receivers. We are going to impress upon our friends that the givers have in reality the best of it every time. (Loud applause.)

The Chairman: I will ask Sir Alfred Fripp to say a few words.

Sir Alfred Fripp: Gentlemen,—I do not know whether all of you know what an honour it is to have our representative Governor come to us and throw himself upon us to help him. To be Treasurer of Guy's Hospital is really a very distinguished position indeed. To be a Governor of Guy's Hospital is a much more difficult and praiseworthy thing than most of you know I expect, because, as a matter of fact, you cannot be a Governor of Guy's Hospital by merely making a small annual subscription, as you can of some of the other hospitals. The Governors of Guy's Hospital are a limited body of sixty, and by Act of Parliament they cannot increase their number. Our Treasurer is the chosen officer of those sixty, and as such is the Head of our School as well as the Head of our Hospital. He follows a man of glorious memory in our School who, thank goodness, is still with us, Mr. Cosmo Bonsor. Mr. Cosmo Bonsor steered the previous great appeal, to which Mr. Whitbread has alluded, in 1896, to great success, and it is up to us to see that our new Treasurer meets with no less success in the smaller appeal that he is making. So I am sure that you will all follow your Senior Physician, Dr. Fawcett, and do your utmost on this occasion so as to make it another epoch in the history of Guy's, as 1896 is to all those who have been here in the forty years to which Dr. Fawcett alluded. It is really a re-birth of the Hospital, and if we can make 1924 the year when the complete paying-off of debt is attained under our new Treasurer, it will be a glorious achievement. As Mr. Whitbread said, the family of Guy's is so numerous that it should not be difficult. If every man can make it his business to collect, by the means suggested by our Treasurer, he does not have to subscribe it himself, but he makes himself responsible for bringing a cheque in support of Mr. Whitbread's appeal, as he said £20, or £10, if every old Guy's man as well as present Guy's men and women could bring along such a sum as that, we should have gone very far indeed to attaining the end.

After the words of our Treasurer and Senior Physician, there is no need perhaps to remind you of what the terms "Guyite" and "old Guy's man" mean after you have gone out in

life. It really means more than it does to be a member of any other hospital, and there is something about it which carries all over the world. To show that that is founded upon solid worth, I do not think we should be divulging any secret if we referred to a certain Report, which will be made public before very long, made by a Committee entrusted with a visitation of all the Schools in London. That Report speaks in the most eulogistic manner of the way in which Guy's has moved with the tide. And a terrible lot of moving it has entailed.

Mr. Cosmo Bonsor found it necessary to expend a large amount of the money collected in 1896 upon the re-building, the addition of other departments. In this Report you will find repeatedly Guy's is alluded to as a pioneer in this or that. I am told that this Report is public now and is called "A Report on the Visitation of Schools." It is so full of praise I forget which particular point I was going to bring out. Almost at every turn it says: "This should be done at every School, as has been done already at Guy's."

At any collection of Guy's men like this one must not forget to mention one other name, and we must back him up all we can. The wonderful pioneer here, who helped Guy's and advised Mr. Cosmo Bonsor, was Sir Cooper Perry. Sir Cooper Perry has gone from you, and his chair is most amply filled by our distinguished Superintendent now present. It was Sir Cooper Perry's wonderful work which again and again sent out a note to which all the other hospitals had to play if they wanted to keep up rivalry with us. Sir Cooper Perry built here the first College for you fellows to live in that ever was attached to any Medical School. There was a college before, but it was not built for the purpose; it was two or three converted houses of another hospital. Sir Cooper Perry financed that, and the finances have been ably conducted. One of the greatest Chancellors of the Exchequer that there ever was, Mr. Gladstone, the Grand Old Man, when he came down to open that College made the public statement that it had been financed by a brain that was fit to be Chancellor of the Exchequer.

You will see in this Report, and in the Annual Reports, that our costs per bed and per out-patient compare most favourably with those of all the other hospitals. So if only our enormous family does all it can for our unapproachable old Alma Mater, I am sure we can make a success for our new Treasurer.

The Chairman: I will call upon Mr. Hopson to address you.

Mr. Hopson: I cannot do other, sir, than readily respond to the call which you have made upon me, but after the eloquent speeches, the lucid and persuasive speeches, which those present have listened to, I feel that there is very little for me to add. Certainly nothing I can say can in any way increase the enthusiasm already displayed.

It would be idle on my part to pretend that I do not know why you have called upon me to address this large body of students; it is simply because I happen to be connected with what is the largest special department in this hospital. Dr. Fawcett has alluded to 40 years, and I think Sir Alfred Fripp can go quite forty or a little more, but for 36 years within my knowledge there has existed at Guy's a trinity comprising the hospital and two schools. Thank God, sir, that trinity is an individual unity, and nobody can separate those three objects, the hospital and the two schools.

I know you want me to say a few words specially to dental men. I would remind them of what they already know, that plans are in being, in fact they are to be placed before a meeting of the School and Staff Committee next Thursday, to make a very big extension of the Dental Department. (Hear, hear.) The cost of this extension will probably be in the neighbourhood of £15,000, that is to say, the cost of the buildings and equipment. That money is largely in hand and the remainder of it will be raised by the Dental School. This appeal which you are asked to support now is nothing whatever to do with this extension of the Dental School, except this: that when you extend a big department of the hospital it necessarily follows that there must be extra charges upon the hospital to run that Department in the future. That is a fact which must not be lost sight of. But there is one other thing which we have very badly needed ever since the Dental School came into existence, and it is this. We do very badly need a limited number of beds in the surgical wards for the treatment of purely dental cases which cannot be dealt with in the out-patient department. If this appeal is a success (and it is going to be a success) then we are promised a certain number of surgical beds which shall be devoted purely to dental patients. I have

no doubt whatever with regard to the success of this appeal, but, if I might, I would like to quote an old proverb which runs like this: Many there be who bring rakes, but few bring shovels. It is spade-work that is going to tell, and if the ground is well trenched, then it will follow that the raking will be very easy and far more profitable. (Applause.)

Mr. Eason: I am sure you would not like this short meeting to end without me on your behalf thanking the Treasurer very much for coming here this afternoon. (Applause.) I am considerably junior to the three other speakers on the staff I have only been here about thirty years (laughter), but next January I hope is going to be the realisation of my ideals for my hospital. I have lived here for thirty years, and I do not think anybody who has lived here as long and has done as much for it as I have can but feel enthusiastic about the hospital and the school and its future. For 200 years this hospital has been running day and night, dealing with all the fundamental things of human life, birth, and love, and death.

Thomas Guy is lying in his coffin underneath the chapel, and I hope that he is in some way in touch with what is going on. What I want somebody in this audience, or in some audience, to find during the next three months is another Thomas Guy. Thomas Guy, with all his faults and all his rather crooked past, is immortal and will be immortal as long as the English language is spoken because of the great hospital that he founded, that hospital which, in the words on his tomb in the chapel "rivals the endowments of Kings." I hope everyone of you is going out into the world for the next three months trying to find a new Thomas Guy. He is due. About one hundred years after Thomas Guy died William Hunt, another Governor of the Hospital, came along and gave the hospital just upon £200,000 to build that building—not an architectural beauty—which you know as the medical block, or Hunt's House. We want another Thomas Guy. I would like to see some individual come forward in the next three months and, by some big donation make himself in the future as immortal as Thomas Guy, but if you cannot find the individual it is possible for each of you to do a bit of that man's share. If every old Guy's man and every present student—there are about 5,000 of you, including the old Dental men—could produce £20 each, that means £100,000. It is a very small sum for the individual, and that is what the Treasurer wants you to get.

I hope you will pass now by acclamation the vote of thanks to the Treasurer for coming to see you here this afternoon, and I do hope that every Guy's man here and outside will try and see the Treasurer through. (Loud applause.)

The Treasurer: Gentlemen,—I thank you very sincerely for the "murmur" of applause. I can only say that it has been a very great pleasure to me to come here this afternoon. I can say, further, that I never in my life addressed an audience that was anything like as sympathetic as you gentlemen. When I want a little applause I get a most satisfactory roll of thunder; in the interim you could hear a pin drop, such is the attention which is being paid to whoever is speaking. If I had the least idea that the ordinary political audience would behave as you gentlemen behave this afternoon, I would stand for Parliament tomorrow.

The thing that appeals to me, and always will, about Guy's is the love and affection that is borne for Guy's and all those who work in it by the poor residents of Bermondsey and Southwark. That is the finest feather in Guy's cap, in my opinion—the love and affection of the people whose ills we attempt to cure and amongst whose residences our hospital is placed. As long as that feeling does obtain through Bermondsey and Southwark about Guy's, I do not care so much what any other hospital does, or even King Edward's Hospital Fund, or the British Hospital Association itself. When the poor have that feeling of reverence and affection for a hospital, there is not very much wrong with the commonwealth of that hospital.

I thank you for what you have promised to do this afternoon; I am certain you are going to do it, and I am certain that I shall be a very proud and grateful man about the 6th of January next.

Change of Address.

W. H. Grace, Summerfield, Kilmorey Park, Chester. Telephone No. 656.

Henry W. Evans, M.D., "Glanfraed," Brundall, Norfolk. Tel. Brundall 55.

Drs. Blake and Evans, "The Firs," Reedham, Norfolk. Tel. Acle 15.

Dr. Russell J. Reynolds, 36, Harley St., W.1.

H. J. Spon is returning to 6, Via Cavour, Ospedaletti, Ligure, Italy, at the end of October for the Winter Season.

Bacteriology of Dental Caries.

Clinical Lecture by ARTHUR BULLEID, M.R.C.S., L.D.S.

DENTAL caries, like the poor, we have always with us, and the prevention of either seems equally difficult. The condition known as caries is a destruction of the tissues of the teeth and is a process distinctly allied, both in its chemical and bacteriological aspects, to the general phenomena of putrefaction. Like putrefaction caries is rarely, if ever, caused by one species of organisms and the reaction of the medium, in both caries and putrefaction, undergoes fluctuation from acid to alkaline.

The disintegration of the enamel, dentine and cementum is brought about in the first instance by the action of various organic acids, mainly lactic, produced by the vital activity of bacteria; subsequently the various digestive ferments, also produced by bacteria, come into operation, dissolving the decalcified matrix of enamel (which has been proved by Malleson to contain some organic matter), dentine and cementum.

Why certain races of men and a good number of the lower animals appear to be almost immune to caries is a very difficult problem.

One point, however, is very definite. The incidence of caries has increased enormously with the artificial processes of civilisation, both with regard to man and to the lower animals.

Now, what do we actually know of the processes that underlie the initial stage of caries? If the truth be told we know very little, though quite recently much original work has been carried out, which I will describe shortly later on. The chemico-parasitic theory of Miller does help us to explain certain things with regard to caries, but it does not explain in any way why it is that in carefully kept, so-called "clean" mouths caries may be rampant, whilst in certain neglected mouths it is not present. As already mentioned, this theory merely affirms that the inorganic material of the tooth substance is dissolved away by the acids produced by the vital activity of organisms on carbohydrate foodstuffs, and then the organic matrix is dissolved away by proteolytic ferments produced by another series of bacteria.

I am not concerned in this lecture with the numerous etiological factors which are directly concerned with the carious process and shall only deal with the so-called exciting factors. There is not much doubt that fermentation of the carbohydrate foodstuffs into lactic acid is the chief precursor of the disintegration process. The carbohydrates are divided into three classes,—the polysaccharides, the disaccharides, and the monosaccharides. The last-named group is the only one which is directly fermentable into lactic acid; the other groups have to pass through a "breaking-down" process before they become directly fermentable.

Briefly, the process is as follows:—

The polysaccharides $(C_6H_{10}O_5)n$ are a large group of naturally occurring carbohydrates, the chief being the starch group, the cellulose and the gum group (dextrines, plant juices and mucilages). The polysaccharide starch is first converted by the ptyalin of the saliva into a disaccharide ($C_{12}H_{22}O_{11}$) by a process of hydrolisation, maltose plus achro- and erythrodextrin being first produced and then the dextrines being finally also converted into maltose. The disaccharides are then converted into monosaccharides ($C_6H_{12}O_6$) by the hydrolytic action of certain of the mouth bacteria. This hydrolytic process is the result of the action of invertin, which is a ferment produced by certain bacteria.

Goadby has divided the bacteria directly concerned in the carious process into two groups, those that produce an acid ferment or toxin and those that have the property of dissolving organic material. He isolated the first group of acid forming bacteria from both the deep and the superficial layers of carious dentine and, as was only to be expected, he found that those isolated from the deep layers grew rather better under anaerobic than aerobic conditions, whereas those isolated from the superficial layers preferred an atmosphere of free oxygen. The method of isolating the bacteria from the deeper layers of carious dentine is simplicity itself if care is taken; the external surface of a freshly extracted carious tooth is well seared with a hot iron and the

superficial portion of decayed dentine removed with a sharp-cutting, sterile instrument, such as an excavator; the surface is then again smeared with a hot iron and the deeper layers of carious dentine removed with another sterile sharp excavator and a tube or tubes of nutrient broth inoculated. Inoculations from the superficial layer are, of course, easily made and no description is necessary.

The various acid-forming bacteria isolated by Goadby from the deeper layers of dentine are as follows:—

Streptococcus brevis B. necrodentalis Staphylococcus albus	deep layers.
Streptococcus brevis Sarcina lutea Sarcina aurantiaca Sarcina alba Staphylococcus albus Staphylococcus aureus	superficial layers.

These bacteria are presumed by Goadby to decalcify the inorganic substance of the tooth and then "liquefying" bacteria digest up the organic matrix left. Under this group Goadby has isolated the following bacteria:—

None from the *deep* layers.

B. mesentericus rubra B. mesentericus vulgatus B. mesentericus fuscus B. fuscus or septus B. gingivæ pyogenes B. liquefaciens fluorescens motilis B. subtilis B. proteus B. plexiformis	from superficial layers.

By the combined action of these two groups of bacteria the complete disintegration of the tooth substance is brought about.

It must be stated, of course, that the acid produced by the bacteria in the first group, although small in quantity, would eventually inhibit the growth of the micro-organisms were it not neutralised as soon as it is formed by union with the lime salts of the enamel.

Such early observers as Leber and Rotterstein tried to produce artificial caries by placing normal teeth in a mixture comprised of the various constituents of a normal diet, and failed. They therefore suggested that caries was not the result of bacterial activity. Miller, however, was able to produce artificial caries by placing teeth in a mixture of bread and saliva for about three months at 37°C. and adjusting the conditions so that a constant acid reaction was present; he was able to produce artificial caries (without the translucent zone) and obtained striking confirmatory results of the rôle played by micro-organisms producing acid fermentation in the pathological condition known as caries. If the reaction of the medium is allowed to become alkaline, then putrefaction sets in, with the evolution of evil-smelling gases, such as indol, skatol, sulphuretted hydrogen, etc. If, on the other hand, the acid production were not neutralised then bacterial activity would be inhibited by the excess of acid formation.

The most recent researches on dental caries are by McIntosh, Warwick James, Lazarus Barlow and Dr. Clarke. The three former investigators really worked on Miller's hypothesis that the acid produced by the bacteria was the initial process. They therefore set to work to find a bacterium or group of bacteria which would produce sufficient acid to de- has been produced the path was, of course, tion has been produced the path was, of course, left open for almost any micro-organism present in the mouth to invade the dentine.

These investigators therefore set to work on the hypothesis that bacteria which could produce large quantities of acid would be able to live in a high concentration of acid,—therefore bacteria which are able to live in a very acid medium are the ones which would be able to decalcify enamel. Acting on this assumption the deeper parts of carious dentine were inoculated into tubes of nutrient broth of different Ph values (*i.e.*, the hydrogen concentration values) for twenty-four hours, and then agar plates were inoculated heavily. In certain acid broths a great variety of organisms grew so the next procedure was to inoculate a broth of Ph 6 direct and after twenty-four hours incubation the more acid broths of Ph 4·5 and Ph 3 were inoculated. Finally the last method was to emulsify the carious material direct into a broth of Ph 3·5, as in this concentration of acid almost all organisms fail to grow.

By these methods two organisms were isolated and fall into two groups. In the first group a long thin bacillus, $0.75\mu \times 2\mu - 3\mu$, was obtained—occurring singly, in pairs, or in chains, having a tendency to parallellism or palisade

formation—which has been named bacillus acidophilus odontolyticus, type 1; and in the second group, a shorter bacillus, $0{\cdot}75\mu \times 1\mu - 2\mu$, occurring in chains and named bacillus acidophilus odontolyticus, type 2. Out of 50 teeth examined 18 gave a pure growth of type 2 bacillus.

Certain experiments were then carried out in which non-carious teeth were put into tubes of 2 per cent. glucose broth and the whole sterilised. Various strains of the B. acidophilus were inoculated into the broths. Every eighth day the teeth were removed and placed into fresh, uninoculated broths, with aseptic precautions, so as to approximate somewhat to the conditions of the mouth and also to prevent the teeth remaining too long in an acid medium. In about seven to eight weeks the opacity of the enamel showed the initial stage of caries and in course of time artificial caries was produced, similar to true caries except that it started from the pulp side and worked outwards.

It is interesting in this connection to note that as only strains of B. acidophilus odontolyticus were employed they must be capable of liquefying the dentine, since photo-micrographs of the teeth in which artificial caries had been produced showed true widening of the tubes with liquefaction foci. It is also interesting to note that the acid produced in greatest quantity by the B. acidophilus was malic and the next highest lactic acid.

It is definitely proved now that B. acidophilus odontolyticus, type 2, is very pleomorphic and that coccal forms are found if more alkaline media are employed than was used in the researches. The simplest method of isolating the organisms from the mouth is to chew up some sterile bread in the mouth so as thoroughly to mix it with saliva; expectorate the mass into a flask of sterile nutrient broth Ph 7·6 and then incubate aerobically for two days. Subculture on to agar slopes at the end of this period and only B. acidophilus will be found in culture.

The latest work on the subject is by Kilian Clarke, who has stated that the B. acidophilus odontolyticus is not present in the early lesions of caries, and he critices the work of McIntosh, James and Lazarus Barlow, in that they only used teeth showing late caries. Clarke has isolated an organism which he has named the Streptococcus mutans, from the early lesion of caries.

He states that this organism can be isolated from the earliest stages of decay and that it grows best in a medium approximating that of saliva. He states that he has been able to decalcify the enamel, penetrate the dentine when the conditions that obtain in the mouth are to a certain extent approximated.

On the other hand, he states that B. acidophilus produces only a superficial decalcification of the enamel, which can be accounted for by the acidity of the medium. He lays stress on the fact that the colonies of Streptococcus mutanis adhere closely to the surface of the teeth and a, local concentration of acid is then produced in contact with the enamel.

In conclusion, the researches mentioned seem to be tending to the conclusion that the exciting cause of caries is a specific bacterial one. It is not possible yet, however, to say if any of those described are the ones absolutely and entirely responsible for the disease.

Mrs. Poland.

ALL past Dental Students of the Hospital will remember Mrs. Poland, who for so many years was employed in the Dental Department.

She retired this year after 20 years' service at the Hospital and was for 8 years assisting at the "Compound" in The Conservation Room, as well as for 12 years as clerk-in-charge of the Waiting Room.

All Guy's Dental men will have a kindly remembrance of her services and unfailing goodwill and helpfulness to students at all times. It is felt that she should not be allowed to leave the Hospital Dental Department without some effort being made to mark the regard in which she was always held, and it is hoped that some token may be presented to her as a material remembrance from Dental Students. Present students have already started a fund and it is felt that past students may wish to associate themselves with this. Such old Guy's men should send donations to Mr. Stuart Smith, Dental Department, Guy's Hospital.

Guy's Hospital Dental School.

The Newland-Pedley Gold Medal for Operative Dentistry for 1924, has been awarded to Mr. G. W. Gathergood.

Correspondence.

Birth Control.

SIR,—In writing to the GAZETTE on the question of Birth Control, I have felt acutely the difficulty of presenting in an acceptable form a subject so hedged about with technical and conventional difficulties. The question is a very delicate one, and parts of it can only be dealt with, as it were, by allusion. I trust, however, that in a hospital journal, read primarily by medical men, I may be allowed a latitude of speech that could hardly be admissible in a less technical publication.

I have, further, been in doubt as to whether it would be more advisable to approach the question from the restricted point of view which it is customary to adopt in the discussion of medical topics, or whether to attempt to present it in its wider social and international setting. The immensely far-reaching social implication of Birth Control, if practised by a section only of a community, and the equally momentous international consequences of its adoption by a nation as a whole, have invested the question, the practical aspects of which are strictly medical in character with a general importance the magnitude of which, I feel, is a justification for adopting the latter alternative. A portion of what follows will therefore appear from the medical point of view irrelevant. I hope that your readers will excuse what may appear to them an unwarrantable and uncalled for digression into general topics on the grounds that since the question of Birth Control is rapidly coming under the ægis of the medical profession, it is desirable that the full effects of it should be appreciated in their widest possible context.

I shall attempt to expound, firstly, what I take to be indications for the practice of Birth Control, and shall then enumerate the more important objections that have been raised against it.

The indications for the practice of Birth Control can, for convenience, arbitrarily be classified as (1) International; (2) Social; (3) Ethical.

1.—INTERNATIONAL.

The relation between an unrestricted increase of population and the genesis of wars is fairly obvious. In this connection it is clear that England is in an almost uniquely favourable situation in that it is always possible for us to dispose of a numerical surplus that threatens to become dangerous by emigration to the Dominions. It is unlikely, therefore, that an increase in our population will ever constitute a source of anxiety to our Continental neighbours. But it is otherwise with other nations. The two most prominent examples at the present moment are probably Japan and Germany. In the first of these countries the natural resources of which are not adequate to satisfy the industrial needs for coal and iron, or to support her growing numbers, there exists a moral and ethical code the creation of which was prompted by essentially military considerations, to the effect that it is the religious and patriotic duty of every man to marry young, and to produce the largest possible number of children, especially male children, for the purpose of providing soldiers for the Mikado. The Mikado is believed, with the full ardour of a religious Faith, to be divine by Japanese, and it is held to be a sacred duty to die for Him in war. When, a few years ago a famous Japanese admiral celebrated the decease of the Mikado by publicly committing suicide in conformity with a time-honoured, though none the less barbarous tradition, the act was commended as one of the highest patriotic virtue. Thus, regardless of the resources of the country, there has been brought about an increase in the numbers of Japanese which has directly, and quite obviously, led to the existing tension between America and Japan, as a result of the former country's refusal to permit the continuation of unrestricted Japanese immigration into America. The situation is still acute, and may easily lead, in a few years to a war, in which there will be a greater probability of our being involved than there was, initially, of America being implicated in the late war.

In the face of a code of this kind, which constitutes the most prominent feature of the far Eastern problem, one may be permitted to doubt the efficacy of "moral gestures" such as that practised by the existing Labour Government in abandoning the creation of a naval base at Singapore. Of course, all attempts at introducing Birth Control into Japan are

treated as indecent, unpatriotic and even sacrilegious.

The situation in Germany is less grave, but is none the less serious. Much the same fusion between religious and patriotic ideals had been effected before the war in order to persuade the German mother that in bearing sons for her Fatherland she was fulfilling the highest spiritual purpose of which her sex was capable. The object of producing sons was avowedly military, and, as in Japan, superseded the purely social desirability of continually increasing the population. Associated with the distinctly German powers of efficient organisation, and the distinctive cult of Kaiser worship, the increase gave rise to a sense of exuberant national strength and pride of power which became partly responsible for storing the gunpowder, if not actually for lighting the match which fired the conflagration of the late war. At the present moment, though birth control methods are being increasingly practised by the more intelligent social elements in Germany, as they are in this country, the old ideal still lingers on, and to it is largely attributable the fear of Germany that has so greatly directed and inspired French policy since the armistice. If the French could rest assured that the population of Germany would henceforth remain stable at say 55 millions, at a figure, that is, approximately compatible with her economic resources, it is likely that France's policy would be greatly modified. Thus, the unrestricted increase of Germans, inspired by a particular ethical code was largely responsible for the genesis of the late war, and may still possibly contribute to the outbreak of another European war at a later date. These two countries display the connection between over-population and wars most manifestly at the moment. Other countries may come to the front in future years. America, for instance, where birth control is illegal, may easily become over-populated and think of a war for territorial gain. And now that the emigration of Italians into America is restricted, Italy may, in course of time, think of the same thing.

II.—Social.

In the so-called Western democracies, where infanticide and abortion are not encouraged, and where the policies of Governments are largely determined by the necessity of earning votes, there exist numerous organisations, most efficient perhaps now in England, for bringing into the world, educating, feeding, and maintaining in relative health, as well as in old age, large sections of the poorer electorate, to all intents and purposes free of charge. The increasing expenses connected with these organisations necessarily fall upon the already heavily-burdened shoulders of the middle and upper class tax payers with the following result.

Those poorer elements in the community, with least initiative, foresight, thrift, and self-restraint, and with least sense of moral obligation towards their children, the irresponsible, drunken, shiftless elements, are most prolific. They and their offspring are largely supported by money levied from people representing a more desirable element of society, who, having more feeling for the future of their children, and desiring to provide adequately for them, are compelled, on their diminished incomes, to limit their families. Thus, those classes, which it might profit a nation to perpetuate, are semi-sterilized, while those of which it would wish to be rid, multiply and are encouraged to multiply. Hence arise many of the problems which beset developed nations to-day—their labour unrest, unemployment, danger of revolution, housing problems, etc., together with the much graver, though less immediate danger of racial degeneration. In the past, when medical science was undeveloped, and public institutions for the care of infants and mothers played a relatively small rôle, the greater fecundity of those classes whose lack of restraint, improvidence and irresponsibility, operating in other departments of life, had served to reduce them to the lowest levels of the social structure, was compensated by a higher rate of child mortality. This, taken in conjunction with the greater fertility of the so-called upper classes, served to produce a condition of approximate equilibrium in the relative rates of increase of the different social elements. This, however, now no longer obtains. An enormous biological advantage is to-day reaped by those who, regardless of their conditions or means of life, produce large families. This advantage holds in spite of such persons possessing other physical or moral defects which, in a more primitive condition of society, would have placed them at a biological disadvantage. The present advantage often holds, in fact, *in virtue* of such defects. Thus at a more elementary stage of social

development, the chief, i.e., the man who has most courage, initiative, personality and resource, had most wives, and produced most offspring. The analogue of the drunken unemployable would probably not be permitted to marry. Nowadays the drunken unemployable finds his nearest approach to an occupation in endowing his wife with a stream of children the succession of which is eventually interrupted only by the breakdown of the wife, the arrival of the menopause, or most desirably by the premature death of the husband. And the only discouragement extended to such a man is to be found in the strictures passed upon him by his slum neighbours. None is forthcoming from the State, and none from the hospital which gratuitously delivers his wife of her children. The hospital even refrains from giving the wife advice as to how to arrest this devasting succession of children. In this respect the primitive tribe, ruled by its chieftain, it more enlightened than our Western democracies.

II.—Ethical.

It is difficult to estimate what percentage of the unwanted children born in the poorer quarters of our large towns are conceived as a result of a culpable aggression on the part of a man upon his wife—as when he returns home drunk on Saturday night and threatens her with physical violence if she refuses to give herself to him—or in consequence of a lack of knowledge of contraceptive methods which are extensively, if not universally, practised by the upper and middle classes. A knowledge of contraceptive technique would partly protect a woman uninfluenced by alcohol, undesirous of more children, and otherwise unstupefied, against having to bear the full consequences of the importunities of an inebriated husband.

And it would come as a most valued and sought after solution to the parent of the second category. In the course of a month upon the District between August 15th and September 15th, 1924, the group of Externs serving the appointment made inquiries of 78 mothers as to whether the baby that had just been delivered had been wanted before it was conceived or whether its appearance was, so to speak, adventitious and unintended. In 31 cases the baby was wanted. In 47 cases it was not wanted. Where doubt existed, as, for instance, where the mother replied that she had not particularly desired the baby, but would not part with it for the world now, or replied non-committally, the benefit of the doubt was given, and the baby was counted as wanted. It is to be noted that these figures in no sense represent the number of cases that wanted or did not want *further* children after the one just born. The recent experience of the pains of labour would have prompted a negative reply in probably 98 per cent. of cases, and the figures would be valueless. They apply solely to whether the baby just born was wanted or not. The recollection of this past attitude of mind stood a greater chance of being favourably influenced by fondness for the child than unfavourably by the memory of the labour more especially as we tried, where possible, to make our inquiries on the tenth day. I shall be happy to supply anyone interested in, or sceptical of, these figures, with names and addresses of the families on which they are based. In most instances the feeler: "Will you be wanting any more babies later, do you think, Mrs. B—?" was received by a hand being raised to the side of the head, while the eyes were elevated as if in supplication, and by a remark such as: "Oh dear, oh Lor!" or, "Don't talk of it, doctor," or, "Please Gawd preserve us," to which was frequently added: "Didn't want this one," or, "This one was a haccident," or, in one case, "This one was a bit of a slip, 'e was." One woman I attended had bought a check pessary but, as she put it, "too late to stop this one!" Further, she did not know how to adjust it, and was afraid of trying. The common superstition exists that anything of this nature runs a risk of being lost in the woman's inside.

A curious attitude of fatalism akin to what was prevalent among soldiers in the war where the question of being killed or wounded was concerned, is also surprisingly widespread. It was frequently expressed in phrases such as, "We must take what comes and not grumble," or, "What must be, must be," or, "It's no use arguing against fate," etc., and reflected an attitude of mind that would have been justified thirty years ago, but nowadays should be entirely obsolete.

The figures, small as they are, probably represent approximately what other groups of externs would find if they made the same inquiries, and I think are a rough index of what actually prevails in the District.

Thus it would seem that considerably more

than half, nearly two-thirds, in fact, of the children born in this particular part of London are not wanted. One is entitled to wonder if it is right that the State and the Hospitals should look with favour upon a condition of things which makes it possible that a woman should be compelled to pass through a large number of closely consecutive, and undesired pregnancies, with effects upon her health which are more apparent to us here than to the lay public, when she could be spared the experience by knowledge of a technique that is familiar to the more educated classes. The effects, also, upon the physical and moral welfare of children subjected to the overcrowding unavoidable in large under-housed families are deplorable. The parents having definitely abandoned the ideal of producing a number of children that they can feed, clothe, and educate satisfactorily according to their own ideals, the children are of necessity left during the day to get as filthy as they like in the streets, where they receive little but hard words in the way of attention from their parents, while their nights are spent sleeping together, packed, in a fetid atmosphere, into one or two small rooms, where they can frequently witness their parents in sexual intimacy, sometimes their mother in childbirth, and where they can indulge in what, in after life, would be called incestuous practices with each other.

And yet our ethical code is such that the husband is not discouraged from continuing to produce more children, and the wife is not taught how to prevent them coming. In America the giving of instruction is illegal, and here it is looked upon unfavourably by the Government and by public opinion.

The objections to the practice of birth control are numerous. There are, I think, seven which deserve to be taken seriously, and I feel that if the charge of gross partiality is to be avoided, mention should be made of them.

I shall make no attempt to discuss them, as this would take too long.

1. The national objection, above referred to, arises from the view that the essential merit of a country is to be gauged by its powers of offence and defence against its neighbours, *i.e.*, by its military and naval strength, and that a restriction of the population, in so far as it would affect those powers, is unpatriotic and immoral.

2. An objection of a pseudo-political nature is often advanced which envisages a bureaucratic extension of the Principle of Birth Control. It is assumed here that by the term Birth Control is meant "State Control of Birth." I do not think that this is the meaning intended by many of its advocates, who understand by the term a "voluntary regulation of births." But nevertheless the criticism is advanced that such a control would involve a restriction of the liberty of the individual—in this case his liberty to produce as many children as he liked. The political ideal of Individual Liberty was the cornerstone of 19th Century Liberalism, and still has a certain number of adherents.

3. The religious objection finds its chief advocates among Japanese and Roman Catholics. By the former, the religious and national ideals are closely identified. The religion is based on Mikado and ancestor worship, and is violently nationalist in complexion. The objection is here, therefore essentially the Nationalist objection.

The Roman Catholics protest against any form of control that makes use of a chemical or mechanical device to prevent conception. The only admissible control must be self-control taking the form of a voluntary sexual abstinence from each other on the part of both parents. Abstinence on the part of one parent against the will of the other is regarded as a mortal sin on the part of the refractory parent. The exception made in favour of the mid-menstrual period has, I understand, little medical significance. As popularly interpreted it is understood by uneducated Catholics to be more culpable to make use of a contraceptive device, and thus avoid having an unwanted child, than to produce such a child, undesired by the parents and superfluous to the community. The parents' duty towards the child is not given much weight. One's experience of women with pelvic deformities, cardiac disease and other disabilities which incapacitate them from going to the full term of pregnancy causes one to doubt the efficacy of the bare religious deterrent. It would seem that such women frequently become regular inmates of hospitals in order to have abortions induced until eventually, in desperation, a Cæsarean section is performed and the woman sterilised. If deterrents of this magnitude are ineffective in procuring abstinence, is it reasonable to expect it of normally healthy people for far less immediate reasons?

One further asks oneself what psychological

effects upon the relations of husband and wife are likely to be brought about by their being compelled to regard each other in the light of a physical temptation to which, if children are really not wanted, it is disastrous to succumb. Such an attitude of mind would be productive of discord, psycho-neuroses, and probably of the practice of sexual perversions. In effect, the result of the prohibition is simple. *Conscientious* Catholics (all Catholics, the French ones for instance, are not conscientious in this sense) have large families. And in so far as the Catholic Church desires to extend her Spiritual Empire throughout the world, this is what she would wish to bring about, though she doubtless has other reasons for this prohibition. It is partly inspired, I believe, by the objection expounded under 5 below.

4. The governments of capitalistic countries have been charged with opposing the dissemination of knowledge about birth control on the grounds that a prolific working class carries with it a competition for employment, and therefore cheap wages. It is doubtful whether this is operative in England. It is possible that it may be a factor in America where the labour problem is acute, and where it is desired to limit coloured immigration.

5. Distinct from, though perhaps partly inspiring, the religious objection, there exists another "conventional" objection, based on the view that the province of sex is unmentionable, indecent, disgusting, and not to be discussed; in short "immoral." This feeling, especially potent among the upper and middle classes, is favoured by a numerical disproportion among the sexes, especially one involving a predominence of (in a monogamous state necessarily unmarried) women. It is to a certain extent derived from what seems to be a deeply-rooted instinct that sex indulgence, even of the most legitimate nature, is somehow incompatible with devotion to a purely spiritual life. Thus it is prevalently felt in the world, that devotees to the religious life must be ascetic and celibate. It is an instinct, clear and probably underived, and very difficult to understand and explain. It is a component of the "conventional" objection, which also consists of other probably more potent, though less worthy motives. Thus, by the conventional objection it is held that all sexual experience is demoralising and wicked, and therefore anything which facilitates sexual indulgence, even among married people, and frees it from its normal implications and consequences, must necessarily be wrong.

6. A "medical" objection is advanced by opponents of birth control—notably Dr. Halliday Sutherland—who assert that the use of contraceptives tends to make a woman neurotic, and leads to the production of uterine and cervical fibroids.

7. Lastly, comes the argument that the dissemination of knowledge of contraception must lead to an increase of promiscuity and license, both among married and unmarried women. The temptation to illicit sexual indulgence will be greater (in that a deterrent will be removed) and the process of seducing an innocent girl will be facilitated if an assurance can be felt that the subsequent birth of a child can be prevented by a technique familiar to one or both parties. There is undeniable truth in this allegation and of the objections hitherto advanced, it is surely far the most important. And it brings me to the essential point of this letter, which is that the question of contraception should be taken up by the medical profession, and its principles taught in medical schools.

Though recently a number of the *Practitioner* was devoted to the subject, it has up till now been elaborately avoided by all except the most recent text-books on Midwifery and Women's Diseases. Neither in the index, nor in the text of the Ten Teachers' Handbooks of Midwifery and Gynæcology is the word "contraception" mentioned, and no reference whatever, direct or indirect, is made to the subject, so that a student, having mastered these two most representative and authoritative works, and considering himself more or less competent in their subjects, would, after having passed his examinations, be as ignorant of contraception as the average layman. The nearest approach to a reference to the subject that I have discovered in these volumes is found at the bottom of page 716 of the book on Midwifery where the statement is made that "Destruction of fœtal life is so detrimental to the welfare of the State that it merits punishment only short of that meted out to murder," and on p. 718 that a woman should be "forbidden to become again pregnant if suffering from insanity, nephritis, tuberculosis, epilepsy, or pernicious vomiting, though there is no suspicion of a hint as to how she should be advised to prevent this happening.

The omission of any mention of birth control

and the attitude expressed in the first-quoted sentence, emanating as they do from the pens and consciences of ten of our most illustrious gynæcologists, constitute the quintessence of orthodox medical teaching.

Thus it has been left to an unqualified person to initiate a popular campaign in favour of birth control. This campaign has been launched in a series of short popular books, which are obtainable anywhere, and have had an enormous sale. Copies of "Wise Parenthood," "Married Love," and "Radiant Motherhood," may be bought in the most remote of provincial stores. The author of these works. Dr. Marie Stopes (the title of Dr. does not imply a medical degree) has felt it her duty to combat what she holds to be a degraded view of the sexual life by an argument, the purport of which is to dissociate the amative and propagative functions of the reproductive instinct. This argument is conducted in terms calculated to instil into the public an appreciation of the significance of the amative function of sex, *per se*, conceived of independently of its normal biological sequela, the birth of a child.

The language is in places flowery and highly-coloured, and of such a nature as to inflame the imagination of both young and old. Her books are read extensively and secretly in girls' schools, where they are passed round, and by boys in the same spirit that indecent literature in general is enjoyed.

I do not wish it to be understood from the above that I am desirous of running down Dr. Stopes, whose courage and sincerity of intention, even though one may slightly regret her method, are as obvious as the disinterestedness and devotion of her work. I desire solely to draw attention to what I feel is a most important and forceful objection (to a general dissemination of knowledge of contraception) which is attributable directly to the apathy of the medical profession in this sphere. The immensely beneficent results which might have been achieved by the judicious administration of advice to multiparous mothers by their doctors—which advice, given privately upon a delicate topic would probably be kept private by them, and applied precisely where required—have now been obscured by a public propaganda the scope of which is such that popular works on this most intimate subject can be (and, in point of fact, are) obtained and read by flappers all over the country. Among other things, these works have been responsible for providing instruction to girls of initially dubious virtue as to how to adopt the profession of more or less open prostitution. They can, in fact, in one sense, be considered as practical handbooks of prostitution, and doubtless are used by many as such. The blame for this state of things falls directly upon the medical profession. The discovery of the spermicidal suppository, and the occlusive pessary are scientific discoveries, based on physiological principles the operation and application of which are essentially medical in character. The complete omission, therefore, of any mention of these matters from the orthodox medical curriculum and training must be regarded as enanating from a superstition if anything more idiotic than that which a few years ago forbade gynæcologists undertaking major pelvic operations by any other than the vaginal route.

Why is it that the medical profession has up till recently refused to consider the subject seriously? I believe that the answer to this question is complex. It is partly due to adherence to the nationalist superstition which holds that the birth of every new individual, irrespective of his quality, is a matter of the utmost national moment. The prevention of a conception, or the death of a fœtus, is regarded as a national disaster (in spite of our million and a quarter unemployed) such that it is deserving of "punishment only short of what is meted out to murder." Its attitude is also partly due to the conventional view that the province of sex is Indecent and Unmentionable. Thus, a question upon which a doctor can count upon being asked with the same degree of certainty as he can count upon having to get up in the morning, is how long after conception it is good for a married woman to have sexual intimacy and how long after childbirth it is desirable to wait before having further intimacy. The books do not say a word about it, and I have not yet met anyone in this hospital who is any more informative than the books.

This view of sex, though not held privately by many medical men, is professed publicly for the purpose of conciliating public opinion. The medical profession is distressingly dependent on public opinion in everything from its clothes to the expression of its views. The extent of a qualified man's practice (and therefore of his income) depends on the public opinion of him that is current. The influx of subscriptions to a large hospital depends very

manifestly on the condition of public opinion towards that hospital. It is therefore necessary for the private practitioner to avoid provoking public opinion by the expression of views—whatever his private opinions may be—for which the public is not prepared, and for the Directors of a Hospital to do nothing officially which may alienate the public upon which that hospital depends financially, whatever the private views of individual members of the staff may be. Thus arises the depressing spectacle of an enlightened and learned profession adapting its views to conform to a narrow and ignorant public opinion. A profession, that is, which should lead public opinion, is willing, in many respects, submissively to follow it. It is not, of course, for me to suggest remedies. I confine myself merely to indicating what appear to be the causes of an apathy on the part of the profession which has led to a somewhat undesirable popularisation by a non-medical person of an essentially medical subject, and to accounting for the genesis of a strong antipathy to that subject, the onus of which should not be borne by the subject itself, but by the medical profession which has refused to acknowledge its existence.

The purpose of this letter is two-fold. Firstly it is intended to draw attention to the international and social importance of the question of birth control from the point of view of the future welfare of the human race, and its constituent nations. The part dealing with this is, of course, outside the province of the medical profession at the present moment. It may come within its sphere in future years in International Conferences between Economists, on the one hand, to decide the question of optimum population for different countries, and medical men, on the other, to determine upon the best practical methods of realising this optimum. The second object is to draw attention to the desirability of the subject being taken up by the medical profession, and of its not being left to unqualified people to expound.

I have no intention of going to the lengths of advocating a Eugenic Department of the Ministry of Health, equipped with power to forbid marriage, or to sterilise undesirable individuals. I wish merely to suggest that it would be a good thing if students, in their 6th appointment in Queen were taught whatever is the considered opinion of the hospital gynæcologists upon what are the best methods of contraception, together with their practical application. Nothing, for instance, would be easier than for a registrar to demonstrate, upon an anæsthetised patient, prior to doing a small operation such as a curetting of the uterus, the method of adjusting whatever form of pessary is held to be the best. And it would also appear desirable, though clearly more remotely realisable, that information on contraception be made available in places like the Salomon's Centre for poor people who do not wish to have more children, or who wish to learn how to space their children out to intervals compatible with their powers of physical resistance. At the present moment information on this subject is only to be obtained in institutions such as that of Dr. Stopes at Holloway, or of the Malthusian League in Walworth. Neither of these centres as yet attracts the very poor, who are in most need of help. Both, further, are run by private bodies of people on subscribed money, with a purely philanthropic object. The scope that can be covered by these institutions is necessarily very restricted.

But before changes as radical as these can be brought about, it will probably be necessary for the profession collectively to be prepared to ignore a narrowly-prejudiced public opinion, and stand up for what it believes to be in the interests of the individual, the race, and the world at large.—Yours truly,

C. P. BLACKER.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

TIME TABLE. WINTER TERM, 1924.

SUBJECTS FOR FINAL EXAMINATION. MEDICAL.

Subject	Lecturer	Days and Times	Place.	First Class or Lecture
Insanity	Sir Maurice Craig	Lectures. Fridays 9.30 a.m. Demonstrations. Notice Board	Physiological Th'tre Bethlem Hospital	Friday, October 3, 1924
Operative Surgery	Mr. Turner	To be announced later	Operative Surgery Class Room	
Forensic Medicine	Mr. Ryffel	Thursdays at 4 15 p.m.	Class Room 3	Thur., Oct. 16, at 4.15 p.m.
Surgical Pathology	Mr. Davies-Colley	Mon. 4.30 p.m., Wed. 12 noon	Museum	Mon. Oct. 6, at 4.30 p.m.
Medical Pathology	Dr. Ryle	Tues. and Sats. 9.30 a.m.	Museum	Tues. Oct. 7, at 9.30 a.m.
General Pathology	Professor Stokes	Lectures. Mons., Weds. and Fridays at 12 noon Practical each morning 9 a.m.	Pathological Th'tre Path'cal Class Room	Mon., Oct. 13, at 12 noon
Revision Classes in Medicine	Dr. Marshall	To be announced later	Class Room 3	Tues., Nov. 18, at 4 p.m.
Revision Classes in Surgery	Mr. Turner	To be announced later	Class Room 3	
Midwifery	Mr. Bellingham-Smith	Lectures. Weds. 9.30 a.m.	Class Room 3	To be announced later
Clinical Lectures		Mondays, Wednesdays and Fridays at 1 p.m.		For details, see notices in Colonnade

ORGANIC CHEMISTRY, ANATOMY AND PHYSIOLOGY.

Subject	Days and Times	Place	First Class or Lecture
Organic Chemistry (2nd M.B. Part I.)	Lectures. Weds. & Fridays 9.30 a.m. Practical. Mons. & Thurs. 10-1 p.m.	Chemistry Theatre Chemistry Laboratory	Lecture. Wed., Oct. 8, at 9.30 a.m. Practical. Thurs., Oct. 2, at 10 a.m.
Anatomy	Lectures. Senior, Tues. & Thurs. 9.30 a.m. Elementary. Mons. 9.30 a.m., Weds. 11 a.m. Practical Anatomy. Daily from 9.30 a.m. to 5 p.m. Revision Classes. To be announced later Normal Histology. Tues. & Thurs. at 2 p.m.	Anatomical Theatre —— Dissecting Room Demonstration Theatre Histology Laboratory (New Building)	Tues., Oct. 14, at 9.30 a.m. Elementary. Wed., Oct. 1, at 11 a.m. —— —— Thurs., Oct. 2, at 2 p.m.
Physiology	Elementary Experimental. (All Junior Students) Fris. & Sats. 11-1 p.m. Advanced Chemical. (Senior M.B. and First F.R.C.S. Students) Mons. & Weds., 21-1 p.m. Clinical Physiology. (All Students) Thurs. 11-1 p.m. Physiology for Dental Students. (Dental Students only) Thurs. 10.30 to 12 noon Tutorial Classes, Elementary. Junior Medical Students. Advanced. (All Senior Medical Students	Experimental Physiology Laboratory Chemical Physiological Laboratory Clinical Theatre Experimental Physiological Laboratory —— ——	Fri., Oct. 3, at 11 a.m. Mon., Oct. 6, at 11 a.m. Thurs., Oct. 9, at 12 noon Thurs., Oct. 9, at 10.30 a.m. To be announced later To be announced later

CHEMISTRY, PHYSICS AND BIOLOGY.

Course	Subject	Lectures	Place	Practical	Place
Pre-Medical Conjoint and Preliminary Sclence (L.D.S.)	Inorganic Chemistry	Tues. & Thurs. 9.30 a.m. First Lecture, Tues. Oct. 7, at 9.30 a.m.	Chemistry Theatre	Tues. & Thurs. 2.55 p.m. First Class, Tues. Sept. 30, at 2 p.m.	Chemistry Laboratory
	Physics	Tues. & Thurs. 10.50 a.m. First Lecture, Tues., Sept. 30, at 10.50 a.m.	Physiology Theatre	Mons. 10-1 p.m. First Class, Mon. Oct. 6	Physics Laboratory
Conjoint	Biology	Weds. 9.30, Thurs. 12 noon, Fris. 9.30 a.m. First Lecture, Wed. Oct. 1, at 9.30 a.m.	Anatomical Theatre	Mons. & Fris, 2-4 p.m. First Class, Fri. Oct. 3, at 2 p.m.	Biology Laboratory
M.B. London (1st Exam.)	Chemistry	Tues. & Thurs. 9.30 a.m. First Lecture, Tues. Oct. 7, at 9.30 a.m.	Chemistry Theatre	Mons. 10-1 p.m., Tues. 2-5 p.m. First Class, Tues. Sept. 30, at 2 p.m.	Chemistry Laboratory
	Physics	Tues. & Thurs. 10.50 a.m. First Lecture, Tues. Sept. 30, at 10.50 a.m.	Physiology Theatre	Thurs. & Fris. 2-5 p.m. First Class, Thur. Oct. 2nd, at 2 p.m.	Physics Laboratory
	Biology	Weds. 9.30 a.m., Thurs. 12 noon, Fris, 9.30 a.m. First Lecture, Wed. Oct. 1, 9.30 a.m.	Anatomical Theatre	Weds., Fris. & Sats. 11-1 p.m. First Class, Wed. Oct. 1, at 11 a.m.	Biology Laboratory

The Glory of the Glub.

Don Sebastian Juan Hunyadi passed
With stately step from out the portico
Of that fine house, in which for many a year
He and his own had dwelt in Old Madrid.
The time was Carnival, that month of sport,
In which a Hidalgo of noble birth
Could fling without the sacrifice of caste
His motley cloak across his laughing back,
And dance La Hota with the Spanish maids
Without the presence of their strict duennas.
Don Juan—thus by all his friends so called,
Since constant repetition of his name
Would weary even that unfailing grace
So well beloved and honoured by the Dons
Who formed his circle, his exclusive clique—
Tarried. Last evening in the moonlight bright
A lady, name unknown, had sweetly sung
A trifling song of love to him. The words
So incomplete in passion would not tempt
A tattered wine-shop thief to give them ear.
But as a sapphire sea may sometimes set
A value on the scrubby boat it floats,
So had her eyes both dark and cozening
Enriched the hour, the setting and the song,
Until the Don could hold no thought of life
Except the time when he and this dark vamp
Might meet again and lose their separate worlds
In one consuming kiss of southern love.

* * * * *

Patrick McAndrew David William Glub
Played in that wild tempestuous Saxon game
Of Rugger, the position known as back.
Stalwart was he, with some unnatural corners,
Which many a fair and promising young half
Had met but for a moment in their haste
And so had sped to that Valhalla where
The rash, who die in action, do assemble.
He also was a student, not too brilliant,
Still in the throes of that inspiring fight
That marks the restless time of life which comes
After the Second Conjoint.
Six days in Sunny Seville had he been
For six bright guineas, and was now returning
Via Bilbao, Tunbridge Wells and Penge
To his dark rooms in Maze Pond, Bermondsey,
There to perform with much refreshed mind
The further work and pain that lay ahead
Ere he could take an honoured place with those
Who last time passed their Final and were fledged.

* * * * *

O senoritas, turn aside your ears,
Keep back the sound of that deep rumbling growl
Of forceful curses that do emanate
From Glub; not let your frighted eyes observe
The flashing lightnings of Don Juan's gaze
That play about the big and nobbly form
Of that poor wretched man, who though well known
Among his own, is to the Don no more
Than a vaquero with a bridgeless nose.
For Glub has trodden hard upon the toes
Of Castille's deadliest swordsman. Hapless Glub!
His tackling low will now avail him naught
Against the venom'd lightnings of the blade
The Don will wield against him on the dawn
Of dread to-morrow.

* * * * *

Caramba! What? Is this the man that makes
A crew of fifteen others 'gainst him placed
Feel that but hippopotami gone mad
Are matched against them? Why, this fool's all hooves,
And has no knowledge how to hold a blade.
"What! must a Don a murderer be because
In that beaf-eating country he calls home
There are not those who know and teach the skill,
The matchless science and the cunning eye
That pinks or finishes your man at dawn.
I do protest I cannot fight him here,
The man is but a baggage-shifting clod."
Thus spake the Don, and with great rage at heart
Glub left the field of honour knowing well
In Spain you may not play as on the field
At Honor Oak when playing teams from Gloucester.
Blackened and blasted is his holiday
And so malign his outlook and his thought
That not a greeting from his friends he heeds
On his return. Straight to the gym. he goes
To vent his smouldering rage on that square jaw
Of Alf's. But stab me! What there does he find?
"Tic-tac, tic-tac," the sound of blade on blade,
The black envisaged face, the jacket white,
The goodly lunge, the parry swift in tierce,
The parry prime, the good and hefty prod
About the solar plexus or the heart,
All with great ease accomplished and with pride.

For Felix Gravé, Maitre D'Armes, is there
To watch the upward promise and the form
Of next year's team at sabres, epeé, foils.
O manna, quails and bursting desert wells!
Was ever there such opportunity
To sponge away the curséd insolence
Of that black-pointed, insolent young Don.
Twelve lessons taken hard as he could go,
And back into the sweet Castillian air,
Contemptuous, and doubly sure to prove
How little doth the mincing Juan know
Of his own game.

* * * * *

The field is set and Glub has got a stance
Of ease and grace that far outshines the Don,
Along whose blade there runs a ring of light
The which on many another field so set
Has been the coup de grâce of better men.
The blade is turned and the slight opening used
To force the Don two paces to the rear
And change his line of sixte to one of carte.
A perfect lunge well balanced and of length
Has made a whitening round Don Juan's mouth
And bothered his rîposte, made much too slow
To catch the wily Glub from off his guard.
The thing is easy. Hell! whatever's that?
The Don has found a line unguarded left
And nearly caught the ragged rugger vest
Upon the point of his Ferrara blade.
Tic-tac, tic-tac, and half-an-hour is gone,
The Don's unfit, he's sweating like a team
That needs the stern and masterly advice
Of stricter trainers. Glub is fit and strong
And forces back the Don until he stands
Feeling with his left foot the outer edge
Of the dank pond that marks the outer bounds
Of honour's field. A green and slimy thing
That caught the eye of Glub when first they drew
The measured length of blade from that light hold
Of Senor Pedro Gomez, honoured Don,
Come to see honour pleased with no sly pokes.
'Tis over, and the slimy pool has closed
Above the ankles of the vanquished Don,
Who lies head downwards in its sluggish depths.
Fords and Hispano-Suiza motor cars
Are offered gallant Glub for his display,
To bear him to the docks where sails at ten
The boat (twice weekly—see the small hand-bills)
That ply between Bilbao and the Thames.
And if among Glub's honest friends are those
Who wish to emulate the ease and grace
With which he overthrew a Don of Spain,
Then they should meet, at given hours and days,
And learn the noble, gentle art of fence
Within the Pavy Gym. They then could spend
Next year's vacation in Peru or Spain,
Pernambuco, in Rio, or Paree,
And feel that they may safely tread upon
The toes of Grandees, Dons and Senors bold
Without the need of hanging low their heads
When called out in the cold grey hour of dawn
To justify their arrant clumsiness.

TOUCHÉ.

(Or to state the matter more briefly, the Hospital Fencing Club is now starting the season, and all newcomers will be welcomed in the Pavy Gymnasium at the times stated on the Colonnade Notice Board.—T.)

Pupils' Physical Society.

Re-founded in 1830.

Hon. President—Sir Charters Symonds, K.B.E., C.B., C.M.G., M.S.

Hon. Vice-Presidents—Sir William Hale-White, K.B.E., M.D. Sir W. Arbuthnot Lane, Bart., C.B., M.S. John Fawcett, M.D. G. Newton Pitt, O.B.E. M.D.

Hon. Secretaries—J. H. M. Campbell, M.D. Grant Massie, M.S.

Presidents—E. R. Boland, W. H. Craib, G. T. Henderson, G. C. Millis, W. R. Spurrell, M. McC. Baird, L. V. Barford, N. Burgess, R. B. Fawkes, A. C Hempson, K. O. Parsons, J. Schabort, J. A. Simons, S. V. Strong, E. C. Warner, Gwyn Williams.

The Physical Society exists for the cultivation and promotion, among the Students of Guy's Hospital, of Medicine, Surgery, and allied subjects, and for the discussion of matters of interest in relation to medical education.

RÉSUMÉ 1923—24.

The attendance during the session showed that the keenness of the members is gradually regaining the pre-war standard, except that the attendance at papers is still very small. The writers take great trouble with their papers, and a very high level is maintained, and it is a pity that more should not be present.

There is still room for improvement, and it is hoped that the programme for the next Session will raise the enthusiasm of the ward students, and that in the future dressers and ward clerks having

interesting cases will bring them forward on their own.

The full programme is not yet available, but the Inaugural Address will be given on Thursday, October 9th, at 5.0 p.m. by Dr. Newton Pitt on "Variation in Disease." Sir Charters Symonds, K.B.E., will be in the Chair. It is specially hoped that men not in the wards will attend this meeting and the joint meeting with the Physiological Society.

Last Session the combined Physical and Physiological Meeting was a great success, and another fixture has been arranged with the Physical Society of St. Thomas's Hospital, the first to be held at St. Thomas's and the second at Guy's; they will be combined Clinical and Pathological Meetings.

The Society is fortunate in its Hon. President and Hon. Vice-Presidents, and in the keen interest they take in its meetings.

The Treasurer's Prize of £5 was awarded to Mr. N. Burgess for his paper on "Acidosis."

A special Second Prize was awarded to Mr. R. Brooke for his Paper on "The Sacro-Iliac Joint."

The Society's Prize for the best Paper read during the Session was won by Mr. E. Wornum with a paper on "Empyema." Mr. Gynn Williams was awarded the Society's Prize of £5 for the member who distinguished himself most in the discussions, and the £5 prize for showing the best pathological specimens was given to Mr. S. V. Strong.

The Treasurer's Prize Essay 1924—25, will deal with any original work done in the Hospital.

Until last Session few entries for the Treasurer's Prize Essay had been received since the war. In hopes of attracting more entries the above subject was chosen with the warm approval of the Treasurer by the Committee of the Physical Society, and the choice was confirmed by a General Meeting of the Society.

This choice of subject was very successful, and four essays of considerable merit were sent in, so that the Treasurer has agreed that the subject should again be left to the choice of the writer. It is hoped that this will be equally successful again.

THE TREASURER'S PRIZE.

A Prize of £5 is offered each year by the Treasurer.

Conditions.

1. The Prize is open to every member of the Society, except qualified men of more than two years' standing at the date of the reading of the paper.

2. The papers must be delivered to the Honorary Secretaries by the 28th Feruary, 1925.

3. Each Essay must be distinguished by a motto or device, and accompanied by sealed note, inscribed with the motto or device, and containing the author's name.

4. The essays of the unsuccessful candidates will be returned on application to the Librarian, with the notes that accompany them unopened.

5. The Prize Essay will be read and discussed at the last meeting of the Society.

The subject for each year will be announced at the beginning of the Winter Session.

THE SOCIETY'S PRIZES.

A Prize of the value of £10 will be awarded for the best Paper read before the Society during the Session; a Prize to the value of £5 will be given to the member who distinguishes himself most in the discussions; and a Prize to the value of £5 will be given to the member who exhibits the best specimens of scientific interest during the session.

Conditions.

1. No member shall obtain the same prize on two occasions.

2. The judges have the power of dividing the prizes should two of the candidates possess equal merit, or of withholding them should insufficient merit be displayed.

3. Two prizes may not be awarded to the same candidates.

EXHIBITS.

Any members who possess objects of general (not necessarily pathological) interest are requested to communicate with one of the Secretaries, so that these may be shown after the reading of the papers.

PROGRAMME FOR 1924—25.

1924.

Oct. 9th.—Inaugural Meeting at 5 p.m. Address by Dr. Newton Pitt, Variations in Disease.
President—Sir Charters Symonds K.B.E.

Oct. 23rd.—Clinical and Pathological Meeting at 8 p.m.
President—Mr. McC. Baird.

Nov.. 6th.—Paper by Mr. R. Gwyn Williams, An Organic Basis for Insanity. At 8 p.m.
President—Mr. W. R. Spurrell.

Nov. 13th.—Clinical Meeting with the Medical and Physical Society of St. Thomas's Hospital at St. Thomas's, at 8 p.m.
President—Mr. E. R. Boland.

Nov. 26th.—Joint Meeting with the Physiological Society at 5 p.m., Discussion on the Functions of the Liver (Provisional). Opening Paper by Mr. N. Burgess.
President—Mr. E. C. Warner.

Dec. 13th.—Clinical and Pathological Meeting at 8 p.m.
President—Mr. A. C. Hempson.

1925.

Jan. 22nd.—Clinical and Pathological Meeting at 8 p.m.
President—Mr. R. Gwyn Williams.

Feb. 5th.—Paper by Mr. W. H. Craib, B.I.D.'s, at 8 p.m.
President—Mr. J. Schabort.

Feb. 19th.—Joint Meeting with the Dental Society, Discussion on the Psychology of the Hospital Patient (Provisional) at 8 p.m. Opened by Mr. K. O. Parsons.
President—Mr. L. J. Barford.

March 5th.—Special Meeting (details to be announced later).
President—Mr. J. A. Simons.

March 19th.—Clinical Meeting with the Medical and Physiological Society of St. Thomas's Hospital at Guy's, at 8 p.m.
President—Mr. K. O. Parsons.

April 2nd.—Paper by Mr. McC. Baird, Some old Guy's Physicians, at 8 p.m.
President—Mr. R. B. Fawkes.

April 16th.—Clinical and Pathological Meeting at 8 p.m.
President—Mr. S. V. Strong.

April 30th.—Special General Meeting and Reading of the Treasurer's Prize Essay.
President—Mr. N. Burgess.

The Gertrude Pye-Smith Bed.

Endowment Fund.

AT the Annual General Meeting of Guy's Hospital Ladies' Association, held in May, it was decided to endow a bed in Victoria Ward to the memory of Mrs. Pye-Smith, who was one of the Founders of the Association, and acted as Hon. Treasurer for 18 years. £550 from the General Funds was set aside for this purpose and of the remaining £450 required, £270 has already been subscribed by relatives and friends of Mrs. Pye-Smith, and members of the Association.

	£	s.	d.
Grant from the General Funds of the Ladies' Association	550	0	0
Special Contributions in memory of Mrs. Pye-Smith, to June 6th:—			
Mrs. Cosmo Bonsor	5	5	0
Lady Rose Bradford	1	0	0
Miss Minnie Browne	1	1	0
Dr. and Mrs. H. C. Cameron	1	1	0
Lord and Lady Congleton	25	0	0
Sir Maurice and Lady Craig	3	3	0
Miss A. E. Davidson	0	2	6
Mrs. Davies-Colley	1	0	0
Miss Devitt	2	2	0
Mrs. E. A. P. Eason	1	0	0
Professor and Mrs. Eyre	2	2	0
Mrs. C. H. Fagge	1	1	0
Dr. and Mrs. Fawcett	3	3	0
Miss Jane Fawcett	1	1	0
Mr. and Mrs. H. Fison	5	5	0
Howson R. Foulger, Esq.	25	0	0
Dr. and Mrs. Herbert French	3	3	0
Sir Alfred and Lady Fripp...	5	0	0
Mrs. Galabin	2	2	0
C. H. Golding-Bird, Esq.	1	1	0
Sir Wm. and Lady Hale-White	5	5	0
R. Hale-White, Esq.	2	2	0
Mr. and Mrs. George Harris	1	1	0
Col. Arthur Hartley	5	0	0
Mr. and Mrs. Montagu Hopson	2	2	0
The Hon. Arthur Howard	26	5	0
Lady Howse	0	10	0
Mrs. E. C. Hughes	1	1	0
Mr. and Mrs. Jacobson	5	5	0
Miss King	1	0	0
Commander and The Hon. Mrs. James Kitson	25	0	0
Lady Arbuthnot Lane...	1	1	0
W. E. L.	0	5	0
Mrs. Leader	3	0	0
Desmond Lea-Smith, Esq.	10	0	0
Mrs. Desmond Lea-Smith	5	0	0
Sydney Lea-Smith, Esq.	20	0	0
Mrs. Stanley Mason	1	1	0
The Hon. Mrs. Merry of Belladrum ...	1	1	0
Mrs. Mollison	1	1	0
The Hon. Mrs. Henry Molyneux	5	5	0
Mrs. Monro	0	2	6
Mr. and Mrs. A. W. Ormond	2	2	0
Dr. and Mrs. Newton Pitt...	1	0	0
Arthur Pye-Smith, Esq.	1	1	0
Edward Pye-Smith, Esq.	2	2	0
Miss Pye-Smith	2	2	0
Mrs. Andrew Reed	5	0	0
Mr. and Mrs. R. P. Rowlands	3	3	0
Mrs. Richard Rowlands	0	2	6
Mrs. Lauriston Shaw	1	1	0
Mr. and Mrs. Bellingham Smith... ...	2	2	0
Mr. and Mrs. Jesse Smith	2	2	0
Mr. and Mrs. F. J. Steward	3	3	0
Sir Charters and Lady Symonds	2	2	0
Mrs. Targett	2	2	0
Miss Norah Taylor	1	1	0
Mr. and Mrs. Philip Turner	2	2	0
C. L. Vizard, Esq.	10	0	0
Mrs. Doris Vizard	10	0	0
Miss Wareing	3	0	0
Miss A. Wareing	3	0	0

The Committee now appeals to old Guy's men, sisters and nurses who knew Dr. and Mrs. Pye-Smith to help them in raising the £180 still required to complete the endowment by November 20th, the anniversary of Mrs. Pye-Smith's death. Contributions, however small, will be gladly received by Lady Hale-White, Hon. Treasurer of this special fund, at 38, Wimpole Street, W.1.

The Farewell Dinner to N. E. Kendall, F.R.C.S.E., and H. Medlock, F.R.C.S.

September 30th, 1924.

"Goodnight, goodnight! parting is such sweet sorrow,
That I shall say goodnight, till it be morrow."

THIS was the sentiment that permeated the carryings on of Romeo and Juliette, and you shall now hear, if you will read aloud, how Mr. Kendall and Mr. Medlock, hereafter often abbreviated to "Nick" and "Pottie," were ushered out into the hard, cruel world with a night of the sweetest sorrow. Mr. Fagge presided in one of the very best rooms at Oddenino's, surrounded by forty guests and the most alluring pictures. The dinner was merely one of the predisposing causes of the speeches, to which we will now hurry. The first was the shortest and was entirely in Latin and was delivered with classical eloquence by the chairman. It preceded the dinner. The next, also by the chairman, was in English, a delicate act of condescension to those of us, who had been bad boys at school and refused

to work. In it Mr. Fagge expressed his great pleasure in presiding over that dinner and mentioned a number of Medlock's good points and Kendall's equally good curves. He felt as young as most of us, he said, and his voice was still as good as ever, so if anyone felt they could sing " For he's a jolly good fellow " better than he could he'd just better get up and try, that's all. So then we all got up and tried. Nick Kendall then spoke. He said that this was an evening all right and that we'd all come there and he could see that and thought it was very nice. He was going away, but however far gone he got, good or bad, there he was, and if he went on any more he would get all sloppy like. Next spake Medlock. He was all for Guy's. He did not want to get annoyed with anyone as he thought it was nice to see everybody there, so he would not discuss how far every other " firm " had fallen below his own " firm." He would only say that he belonged to the Guy's firm and always would and thanked everybody very much.

Gaymer-Jones then made the speech of the evening. Referring to his cuff, he began, " I did not know there would be any speeches to-night, but I am glad to say that Nick Kendall is going to Leicester. He may have a house, but I don't know it, but Pottie has a house, a very beautiful little house, with hot and cold and rooms and things and you can warm your towels when you come in. There's a beautiful stretch of river in the house (here he extended his arms and measured off the beautiful stretch very carefully) and there's an old punt, but I don't want to be hypercritical. If only everyone would view their wives through other people's eyes they would all be much happier and I feel my position so acutely that if I go on much longer I shall be talking balderdash."

The next speaker was the Warden, who said that after that night there would be a great gap in our lives. He was once a humble ward-clerk, but had grown to be the equal of Nick and Pottie, in brains if not in size, and so he wished them God-speed, merely remarking that he found as one grew older that one grew much younger.

Mr. Tanner then sang a few bars of " Just we two and the moon," and confessed that of all the many people, whom he had known intimately, Pottie was only one. Nick he did not know so well and anyhow he had never been trained to jump through hoops.

After Mr. Scott had denied having been brought to the dinner and had made it quite clear not only that he had walked there, but also intended to walk home, Doherty took charge. He had never known Pottie as well as Nick, he said, because somehow he had never known him so well, but Nick he knew quite well, much better than he had ever known Pottie. Pottie somehow had seemed a closed book, which Nick never was and so he had never known Pottie as well as Nick, whom he had known much better than Pottie.

This masterpiece was followed by many others, but we had heard enough. The Editor had told us to get a general impression of the evening and not to report the speeches word for word. We had our impression and were satisfied, and to the mournful strains of " Frankie and Johnnie " we stole away.

Reviews.

Modern Diagnosis and Treatment of Syphilis, Chancroid and Gonorrhœa.

WE much regret that in our last number in the review of this excellent little book, one of the new series of Modern Medical Monographs, edited by Hugh Maclean, the name of the author, L. W. Harrison, D.S.O., M.B., Ch.B., M.R.C.P. Eng., was omitted.

General.

Fundamental Principles in Treatment. By HENRY CAMPBELL, M.D., F.R.C.P. pp. viii. + 477. Published by Messrs. Baillière, Tindall & Cox. *Price* 10*s.* 6*d. net.*

THE two things in the Physician's " make-up " that are most stressed in this volume are the human element and common sense. It is not so much a series of essays on detailed treatment of diseases as one on the principles in treatment of the patient. There are chapters on the Physician's education, his personality, on quackery, on instinct and reason, on phsyco-therapy, housing, clothing, rest, diet and mastication and many other similar matters, important to those, on whom depends the health of a community. There will be few to disagree with most of the principles in this book, but the statement that " The whole art of healing consists in acting directly on brain and nerves (as by education, suggestion and by removing peripheral irritation) and in correcting a faulty plasma—neither more nor less," seems to be a gross understatement of the art. It entails, among other things, a full belief in opsonins, which is by no means universal and makes all diseases secondary to alterations in the composition of the blood plasma, rather than the alterations secondary to disease. This is akin to dispersing an abscess by means of a febrifuge instead of reducing the fever by letting out the pus.

As a whole the book is well worth reading as a manual on the treatment of private patients away from a hospital and will be welcomed by those about to go into practice.

Modern Methods in the Diagnosis and Treatment of Pulmonary Tuberculosis. By R. C. WINGFIELD, M.B., M.R.C.P., Medical Superintendent, Brompton Hospital Sanatorium, Frimley. Published by Messrs. Constable & Co., Ltd., London. *Price* 10*s.* 6*d. net.*

THIS book is one of a series of Modern Medical Monographs, which are being edited by Professor Maclean, on different subjects of medical interest, to enable general practitioners to obtain an up-to-date outlook without reading all the articles that have been written in recent years.

In the volume under review, Dr. Wingfield has certainly complied with the aim of Professor Maclean

and we have an excellent concise account of the modern views on Pulmonary Tuberculosis. He bases his views on treatment and diagnosis on the hypothesis that adult pulmonary tuberculosis occurs as a reinfection, by the most likely path of infection, viz., inhalation, in those who have had their susceptibility to the tubercle bacillus permanently altered by some infection with that organism during the first five years of life. This fact is borne out by the charts he reproduces of mortality due to tubercle at different ages, which show that the human being seems to resist the tubercle bacillus between the ages of 8—16 years, but from 16 years on to middle life an increasing number of us have to give best to the creature and the large majority succumb to him in the lungs.

He lays great emphasis on the universality of infection and points out that only by perfecting our methods of early diagnosis and remembering that every case is liable to repeated exacerbations, can we hope to increase our number of successful treatments. He is also emphatic in his statement that the history and clinical examination of a case are as important, if not more so, than the physical examination of the patient's chest.

In discussing the diagnosis he has very advantageously divided the symptoms into those due to the local lesion and those due to the toxæmia, and at the end of this chapter are a number of excellent plates of X-ray photographs showing the various lesions which may occur. Before going on to discuss treatment, a very useful classification of types has been given, together with a brief outline of the pathology of this disease.

Treatment is discussed under various headings, including sanatorium treatment, therapeutics, specific treatment, artificial pneumothorax thoracoplasty and the treatment of symptoms and complications, together with special chapters on the tubercular child, and the after-care of chronics and arrested cases.

We recommend this book to all those newly qualified and about to take charge of different communities.

Ear, Nose and Throat.

Diseases of the Nose, Throat and Ear for Practitioners and Students. Edited by A. LOGAN TURNER. pp. xxii. + 413. Published by Messrs. John Wright & Sons, Ltd., Bristol. *Price* 20*s. net.*

THIS volume, which is intended to take the place of the late Dr. W. G. Porter's book on the subject, has preserved, as far as possible, his main object in providing the senior student of medicine and the practitioner with a single volume of moderate size. The large print and opaque paper enhance the pleasure of reading and the illustrations are many and satisfactory. Coloured reproductions of such structures as a pathological tympanic membrane rarely look like the real thing, but in this work they are sufficiently like to be useful for guidance in diagnosis. The anatomical descriptions on the whole are clear, that of the middle ear and labyrinth being excellent, but the description of the lateral wall of the nasal cavity is hard to follow without previous knowledge of this part.

There are included two chapters on peroral endoscopy, the knowledge of which is useful even if the practice must be left to the specialist, but the remark that the coin-catcher and pro-bang bougie are now things of the past is more an expression of idealism than of fact. Many half-pennies are still brought back into circulation by these means in the Out-Patient Departments and Surgeries of our hospitals and very few accidents are reported. I have heard of none.

The book is a practical text-book and gives good and detailed descriptions of all the investigations and operations that a practitioner will be willing to perform and adequately fulfils the purpose for which it has been written.

Modern Views on the Toxæmias of Pregnancy. By O. L. V. DE WESSELOW and J. M. WYATT. Published by Messrs. Constable, London. *Price* 7*s.* 6*d. net.*

THIS is one of the new series of Modern Medical Monographs, edited by Dr. Hugh Maclean, and having for its object the provision for the general practitioner of a short up-to-date account of the position of various subjects of general medical interest, without giving him the necessity of searching the somewhat scattered literature on those subjects.

This short volume of 96 pages, presents the modern views on the toxæmias of pregnancy in a clear and readable manner. Admitting, as the authors do, the ignorance by which their pathology is surrounded, they give a valuable summary of the work that has been done to elucidate it, with the lines along which such investigations are being conducted. They point out in what ways some theories fall to the ground and how others seem to have much evidence supporting them. Above all they give ample reasons why the albuminuria, occurring in gravid women, should be viewed with grave suspicion as likely to be the first indication of ensuing pre-eclampsia, eclampsia or nephritic toxæmia, one reason why the book will be of great value to practitioners and students alike.

Much of the work done on this subject during the last year, however, has been entirely omitted.

W. H. A. Jacobson.

We hope to publish an obituary and photograph of the late W. H. A. Jacobson in our next number.

Papers by Guy's Men.

C. H. Housden, L.D.S. Dental Treatment.—*Brit. Dental Journal*, Vol. xlv., No. 17, September 1st.

F. Cook, F.R.C.S. Ante-Natal Clinics.—*Journal of the Royal Sanitary Institute*, xlv., p. 170, October, 1924.

Publications Received.

A Fellowship of Students, The Indian Medical Journal, The British Medical Journal, The Journal of the Architectural Association, The Medical Journal of South Africa, St. Mary's Hospital Gazette, St. Bartholomew's Hospital Journal, The Nursing Times, The Prescriber, The Dental Record, The Indian Medical Record, The Antiseptic.

Students' Club Library—Catalogue of Books.

(*Continued*).

HORN, H. Yachting. 1894.
HOUSTON, Mrs. The Way She Won Him. 2 Vols. 1891.
HOWARD, Henry (Earl of Surrey), The Poems of. N.D.
HOWSON, Rev. J. S. The Life and Epistles of St. Paul. 1888.
HUGO, Victor. Toilers of the Sea. N.D.
——. Les Miserables. N.D.
——. Notre Dame, or Bellringer of Paris. N.D.
HULL, Edward. Volcanoes, Past and Present. 1892.
HUMBOLDT, Alexander Von. Personal Narrative of Travels to the Equinoctial Regions of America, 1799—1804. 3 Vols. 1889.
——. Cosmos: Translated from German by E. C. Otté and W. S. Dallas. 1886.
HUME, David. Essays, Literary, Moral and Poetical. N.D.
HUTCHINSON, Horace G. Golf. 1890.
HUXLEY, Prof. Hume. 1886.
HUXLEY, Thomas Henry. Lay Sermons, Addresses and Reviews. 1891.

IBSEN, Henrik Rosmersholm. The Lady from the Sea: Hedda Gabler. N.D.
——. Ghosts: An Enemy of the People: The Wild Duck. Edited by William Archer. 1890.
——. Peer Gynt. N.D.
—— The League of Youth: The Pillars of Society: A Doll's House. N.D.
——. Lady Inger of Ostrat: The Vikings at Helgeland: The Pretenders. 1890.
——. Emperor and Galilean: A World Historic Drama. 1890.
——. The Master Builder. 1893.
INGLESANT, John. A Romance. 1889.
INGOLDSBY, Thomas. The Ingoldsby Legends or Mirth and Marvels. 1889.
IRON, Ralph. The Story of an African Farm. 1890.
IRVING, Washington. Bracebridge Hall. 1887.
——. Old Christmas. 1886.
——. The Sketch Book. 1889.
——. Salmagundi Whim-Whams and Opinions of Lancelot Langstaff. 1885.

JAMESON, Mrs. Memoirs of Early Italian Painters. 1891.
JARDINE, Sir William. The Natural History of Antiquettes of Selborne with Naturalists Calendar by Rev. Gilbert White. 1890.
JEAFFRESON, John Cordy. Cutting for Partners. 3 Vols. 1890.
JEBB, John. Thirty Years Correspondence. 2 Vols. 1834.
JEBB, R. C. Sophocles: The Antigone. 1891.
——. Sophocles. The Œdipus Coloneus. 1889.
——. Sophocles. The Œdipus Tyrannus. 1887.
——. The Gamekeeper at Home. 1890.
JEFFRIES, Richard. The Open Air. 1890.
——. The Story of My Heart. 1891.
——. After London, or Wild England. 2 Parts. (1) The Relapse into Barbarism; (2) Wild England. 1885.
JEVONS, W. Stanley. The Theory of Political Economy. 1888.
——. Money and the Mechanism of Exchange. 1890.
JUDD, John W. Volcanoes: What They are and What They Teach. 1888.

KANE, Elisha Kent. Arctic Explorations in Search of Sir John Franklin. 1890.
KENNARD, Mrs. Edward. Our Friends in the Hunting Field. 1892.
KERNAHAN, Mrs. Coulson. Trewinnot of Guys. 1898.
KERR, Rev. John. Curling. 1892.
KINGSLAKE, A. W. Eothen. 1891.
KINGSLEY, Charles. Alton Locke: Tailor and Poet. An Autobiography. 2 Vols. 1881.
——. Yeast. 1888.
——. Westward Ho. 2 Vols. 1888.
——. Poems. The Saint's Tragedy. 1890.
——. Andromeda, and Miscellaneous Poems. 1890.
——. Hypatia, or New Foes with an Old Face. 1890.
——. Two Years Ago. 2 Vols. 1881.
——. Hereward the Wake. 2 Vols. 1881.
——. His Letters and Memories of his Life. 1890.
KINGSLEY, Henry. The Recollections of Geoffrey Hamlyn. N.D.
——. Ravenshoe. N.D.
KIPLING, Rudyard. Departmental Ditties. 1892.
——. Wee Willie Winkie. N.D.
——. The Story of the Gadsbys. N.D.
——. The Light that Failed. 1892.
——. Plain Tales from the Hills. 1890.
——. Many Inventions. 1893.
——. Life's Handicap. 1892.
——. The Jungle Book. 1894.
——. Barrack-Room Ballads. 1893.
KIRKUP, Thomas. A History of Socialism. 1892.
KNOX, Alexander, Remains of. 4 Vols. 1834.
KOSTROMITIN, J. The Last Day of the Carnival. 1893.

LANG, Andrew. The Iliad of Homer. 1891.
——. Theocritus, Bion and Moschus. 1889.
——. Essays in Little. 1892.
——. The Odyssey of Homer. 1890.
——. Letters to Dead Authors. 1892.
LANGE, F. A. History of Materialism and Criticism of its Present Importance. 3 Vols. Translation by Ernest Chester Thomas. 1890.
LASCELLES, Rt. Hon. Gerald. Falconry. 1892.
LEACH, Sir George. Yachting. 1894.

(To be continued.)

Sport.

Rugby Football.

Guy's v. Coventry.

BEFORE the season had barely commenced the Hospital has had to withstand a blow in that C. L. Steyn has met with an accident to his leg which will, for some weeks if not months, prevent him playing. It is an opportunity now the famous sprinter is hors-de-combat, to realise what in the world of "Rugger" and Athletic Sports C. L. Steyn has done for the Hospital. No Guy's runner of modern times has done so much in the way of numerous "firsts" in the Inter-Hospital events at Stamford Bridge, and it should be gratefully remembered that Steyn has purposely, for his Hospital's sake, constantly entered for 3 or 4 and sometimes 5 events so to put his Hospital on "top" if human endeavour could do so. Had Steyn studied himself alone and run only and persistently in the 100 yards sprint, the highest honours were for that distance within his reach. What he has done for Guy's Rugby is too well known to need recapitulation. Always merry and bright, all Guy's men wish this good sportsman a speedy and complete recovery.

Now, what about Guy's v. Coventry. We got beaten by 16 points to 8, and if the truth must be told, Coventry, in that they were more virile than ourselves, just deserved to win, but one says just, and not by 16 points to 8. The truth is we were not very much in luck, and one does want just a little of it on one's side as well as on the other. P. D. B. Spence made a first appearance, one didn't expect him to be at his best in this his first match. The first try came to Coventry about 15 minutes after the match had commenced. Pemberton was the scorer. This was followed by a try from Wale. Wale converted both these tries and as Van Schalkwijk gained one try before the interval, we crossed over with our opponents leading by 10 points to 3.

After half-time Wale scored another try and also kicked a penalty. Seems as though Wale did it all. However, one must admit he played a very fine game. The next item was Graham-Davies' try and Van Schalkwijk's conversion.

Both centres played well. Preen did not give his passes quite up to the mark and Meissner was rather slow. For this one must not blame Meissner unduly. The ball hangs in the back row, because the thrust of the pack is not sustained. The forwards were better than against Catford. When J. Durr really gets to know the men, it seems to me the pack will blend into a formidable combination.

Guy's Team.—P. D. B. Spence, R. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. R. Mostert, W. H. Meissner, V. Preen, B. G. Scholefield, N. M. Holloway, G. G. Cameron, J. Durr, W. Mybergh, J. W. Schabort, W. De Wet Vorster, E. W. Hutchinson.

Guy's v. United Services.

IT turned out a beautiful afternoon for football at Honor Oak Park, on Saturday, October 4th, when the Services sent up a strong side from Portsmouth, under the Captaincy of Lieut. Agnew, R.N., and having in the pack Lieut. Faithful, a last year's International, as well as Lieut. Browne, the leader of the Army forwards. It was a great pity that this last named had to leave the field for two-thirds of the game. He had played well till the moment of his injury.

Guy's started off well, but the Service pack is always a sturdy one and they take much holding the first quarter of an hour as they bustle and go for the loose scrummages with all their vim. In the tight we got the ball through the excellence of Mybergh, but Meissner was slow round; he got a nasty bump early and this did him no good. Then Mybergh sustained a strain which he rested for a little time, resuming pluckily and again taking his place in the front rank. Soon Meissner got Preen away, and the fly half did some remarkably good work; it was, however, a grand break through by Van Schalkwijk that sent Graham-Davies and Fellowes-Smith away. The latter ran splendidly to score our first try, which Durr was unlucky not to goal, as he hit the post with his attempt. Wood, for the Services, ran well just after, but Spence accounted for him, in fact Spence put up a fine game all through. A wonderful cut through by Preen and a most timely pass put Graham-Davies in possession, to finish up a good run behind the posts. The kick was missed by Van Schalkwijk. Ding-dong forward play by the men from Portsmouth carried play to the other end. Several free kicks were given against us, one couldn't quite make out what they were all for, and occasionally, we had one awarded to us. The end of the Services' pressure was an unconverted try by the corner flag, Wood forcing himself over.

Early in the second half Wood put in a good run on the left, and after some scrambling play Thomson gained another unconverted try which brought the scores level. The game was a very hard one, the pace tremendous, and all in good temper, neither pack sparing themselves. Durr, Holloway and Cameron were excellent, and Scholefield was constantly in the picture. Hutchinson was useful, but he wants a bit more spirit. His game improves, but lacks "devil." A fine run by Stephenson, the Irish International, who got right away to score and Forrest adding the extra points, left us in a position scarcely expected.

With dogged determination Guy's stuck to their task. One has seldom seen better or more finished passing, and the running was good too. Graham-Davies was quite at his best and Wales will surely find a place for him again this year. His was the next try, Van Schalkwijk helping in the opening movement, and as Graham-Davies converted his own score we were now level. Manfully Guy's tried to gain points to claim the victory, but all efforts were met with stern tackling and a good game ended in a draw of 11 points all.

Guy's Team.—P. D. B. Spence, R. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. R. Mostert, W. H. Meissner, V. Preen, B. G. Scholefield, N. M. Holloway, G. G. Cameron, J. Durr, W. Mybergh, J. W. Schabort, W. De Wet Vorster, E. W. Hutchinson.

Rugby Football Union.

Twickenham, Middlesex.
October 1st, 1924.

Dear Sir,

International Matches at Twickenham.

FOR Season 1924—25 it has been resolved that Tickets for the above shall in the first place be issued direct from the R.F.U. Offices, on application from the Secretaries (on behalf of their Members) of County, Services and Varsity Unions, and of Clubs in membership with the R.F.U. Application for all matches must be made by letter to the Secretary of the R.F.U. at the above address not earlier than November 1st and not later than November 14th, 1924.

The dates of the matches are as follows:—

Saturday, January 3rd, 1925, England v. New Zealand.
Saturday, January 17th, 1925, England v. Wales.
Saturday, February 14th, 1925, England v. Ireland.

A remittance in full must accompany every application for Tickets required, the prices of which are as follows, including Tax:—

(a) Covered Seats in the West, East and North Stands, 10s. each.
(b) Ring Seats along the Touch Lines, 7s. 6d. each.
(c) Ring Seats from Goal Line to Dead Ball Line and along the Dead Ball Line, 6s. each.
(d) Ring Seats for *bona fide* PLAYING Members only, 5s. each.

All the above include Admission to the Ground.

With regard to "d" the R.F.U. desire to point out that this is a special concession to actual PLAYERS only, and any Club found allocating these Tickets to others will be debarred from this privilege in the future.

With regard to "a," "b" and "c," these Tickets are for Members of the Unions and Clubs applying for same, and no deviation must be made in this respect, and the R.F.U. look to Secretaries to see this faithfully carried out, in order that Club Members may have prior consideration.

The R.F.U. wish to point out that whilst they are desirous of meeting Clubs' wishes as far as is practicable, they cannot guarantee that the number of Tickets applied for, or the particular class of Ticket, can be allotted, and the balance of the remittance forwarded with application will be returned if allotment in full cannot be made.

Allotment will be made as soon after the 14th November as possible, and any Tickets then available will be offered to the general public through the usual channels. No allotment will be made to Clubs who have not paid their subscription.

Tickets for the International Trial Match, England v. The Rest, at Twickenham on Saturday, December 20th, 1924, will only be obtainable through the R.F.U. Offices, and application should be made for same on or after November 1st, 1924. Prices for covered seats, 5s.

The R.F.U. are desirous that you should make the contents of this letter well known in your district, so that everyone may thoroughly understand the procedure with regard to the International Tickets.

Yours faithfully,
C. J. B. MARRIOTT,
Acting Secretary.

Will all those members of the Club requiring seats give their names to me and at the same time pay for the seats they require, D. Ettles, *Hon. Sec.*

United Hospitals Sailing Club.

The Albatross in Racing Trim.

A 24-footer that can boast of having slept four persons nearly every week-end this summer can scarcely be said to be a racing machine, and those luckless students who at one time or another have been lured to the *Albatross* for a week-end, and have had a wet seat and empty tummy for consolation, will agree that she is built for strength and comfort rather than speed; although anyone who has struggled with the folding cot up for'ard or experienced the unbending austerity of the cabin floor at night may well reserve his opinion about the comfort of it. But for all that it must be said that the *Albatross* is strong, heavy and beamy; that, in fact, she is every inch a cruiser designed for riding out Channel storms rather than for racing. Everyone thought we had gone mad, therefore, when it was announced that the *Albatross* had been entered for three races given during Burnham Week by the Royal Corinthian Yacht Club. It was, of course, no more than a piece of bravado; but having explored every harbour from Falmouth to the Scheldt why should we not have a turn at racing? So a party of hopefuls spent a feverish week-end stripping her of all surplus gear, mattresses and clothing, polishing her bottom, reeving spinnaker halyards and generally trimming her up for speed. There were "Jock" and "Tup" and "Silver-Topped Willie" and "Skipper" and all worked like Trojans. The day before the race we put her through her paces and practised the finesse of tacking, gibing round buoys, and sundry other manœuvres.

The first race was on Monday, the 8th of September. Fearful of crossing the line before the gun we erred on the other extreme and got away last. It was a nineteen mile course, however, and we were not daunted by our bad start. The first reach was a stretch of two miles down the river to a beam wind, and we were the last of nine boats to reach the buoy. Rounding the buoy, however, we shot up well to windward and in the short beat to the Roach, as by a stroke of magic we pulled up to third. Excitement was at this moment intense. Could we keep it up? We were still third round the buoy up the Roach, and hoisting spinnaker in the run out to the West Buxey, we drew well clear of the craft in our rear. Having rounded the Buxey we were making up well to windward on the way home and were pressing hard on the heels of the first and second boats when alas! a dreadful thing happened. We were stealing as close as possible to the side of the river to cheat the ebb, when we touched mud. The most convulsive efforts for freedom failed and we were stuck for five hours, with the sole satisfaction of having discovered yet another mud-bank on the Crouch. So ended the first days' racing.

The second race was a couple of days later and this gave us time to readjust some of our gear and take soundings at all the doubtful places on the course. We made a slightly better start than before —getting away about sixth out of ten. It was the same course. The wind was in the same quarter and moderately fresh. We ran sixth for the whole of the first reach, but rounding the buoy we again scored heavily, and were third into the Roach. In the run out to the Buxey we held our own, but could not catch the two fast boats that led us. Beating home against wind and tide we again nestled more closely into the bank than most of the others dared, but knowing our ground, and with Jock throwing the lead we did not take any serious risk. It was a thrilling race all the way, the wind being strong and keen and the sea full of beans. Moreover, to keep the boat on an even keel the crew nobly lay at full length on the windward gunwale in the teeth of the spray. It was a great moment, therefore, and we felt that our efforts had been rewarded when, at the finish, the gun fired and we had won a third prize.

The next day it blew half a gale and we made the mistake of hoisting too much canvas. The result was that we nearly buried the old boat, and at one time, while beating opposite the Roach, we took so much sea into the cockpit that all hands had to work desperately with pump and bucket to keep ourselves above water. We appear by all accounts to have thrown up an enormous quantity of foam, but made very little headway in spite of it. In this reach, while shortening sheets in the act of rounding a buoy, Jock took a header and it was some little time before "Silver-Topped Willie," having completed his task on the foredeck, turned round to behold him trailing in the water astern, gamely holding on to the main sheet with one hand while clutching at the stern rail with the other. It was hard sailing, but we plugged her at it and eventually got home—fourth out of ten.

Nothing can surpass the thrill of racing in September weather, when the winds are keen and the spray stings as it flies; and if this was the first time that a crew of Guy's students have figured in Burnham regattas we venture to predict that it will not be the last.

Tennis.

RAIN played havoc with this season's fixtures for although the 1st VI. had arranged some thirty odd matches only about twelve were actually played.

Junior Surrey Inter-Club Competition.

Guy's 1st VI.

Guy's 1st VI. were knocked out in the Semi-Final of this Competition by Thames Ditton. Result, 5 matches to 4 (against).

On August 23rd, the 1st VI. played Eastbourne, at Eastbourne, and were beaten after a hard fight by one match. Result, 4 matches to 5.

Team:—P. D. B. Spence, W. Badenhorst, S. F. Durrans, D. Grant, A. H. Musgrove, F. R. Ratnager.

Senior Inter-Hospital Cup Final.

Guy's 1st VI. v. King's College Hospital 1st VI.

This match was played on courts kindly lent by St. Thomas's Hospital, and resulted in a win for King's by 8 matches to 5 (2 unplayed).

King's turned out a very hot side, which included S. Hasson (Indian Davis Cup Team Reserve).

We were unfortunate to be without Spence and Sharpley. Both were badly needed.

Our men played extraordinarily well, but were beaten by a better team.

In the Singles, Lurie, Neser and Ratnager won their matches. Lurie had a great fight with his opponent—eventually taking the final set at 13—11. Neser played a good game against Bell, for after being down 1—5 in the second set he managed to win at 7—5. Ratnager also had an uphill fight against Dauncey (1—6, 8—6, 6—2).

In the Doubles Lewis-Philipps and Neser did very well to beat Hasson and Munro after losing the first set at 7—9. They also beat King's third pair in two straight sets. Lewis-Philipps played his usual steady game. Neser did good work with his powerful service, whilst at times his overhead smashes were deadly.

Both Badenhorst and Lurie and Boyle and Ratnager struggled hard, but were eventually overwhelmed.

Team:—H. Lewis-Philipps (Capt.), E. E. Neser, W. Badenhorst, D. Lurie, W. Boyle, F. Ratnager.

Junior Inter-Hospital Cup Final.

Guy's 2nd VI. v. Kings College Hospital 2nd VI.

Here again our team was outclassed. King's won by 8 matches to 2.

Team:—L. Parker Tupling (Capt.), S. Durrans, D. A. Newbery, F. Ratnager, A. H. Russell, H. P. Yew.

Lane-Washbourn Singles Cup.

In the Semi-Final A. H. Russell beat L. Parker Tupling, 6—3, 6—4. H. Lewis-Philipps beat S. Durrans, 6—1, 6—2.

In the Final H. Lewis-Philipps beat A. H. Russell 6—1, 6—2. Russell played well, but found himself up against a very experienced and steady opponent.

Nurses' Inter-Hospital Swimming Gala.

THE Nurses's Inter-Hospital Swimming Club held a very successful gala at the Royal Automobile Club on Saturday evening, September 20th. Eleven of the London Hospitals sent competitors for each race and Guy's, of course, was well represented. Nurse Waring won two first prizes, for Life Saving and for the Uniform Race. Nurse Tucker joined with her in winning the Life Saving. Nurse Windsor won the second prize for the Plunge and Nurse Baker two third prizes for Diving and for the Breast Stroke Race. A Cup was presented for Diving and also one for style in the Breast Stroke. Both these were won by a Bart.'s nurse.

Mrs. Hughes, Instructress to the Club, gave a very fine exhibition of swimming and a few tricks in the water.

Contributions to the Club or towards the Gala, which is held every year, would be most welcome, anw could be sent to the Guy's Secretary, Miss K. Burton.

Guy's Hospital Golfing Society.

MEETINGS of the above are held at the course of the West Kent Golf Club, at Chislehurst. The Club is five minutes walk from Chislehurst Station, S.E. & C. Railway. Return fare from London Bridge 1s. 6d. The Green Fee is 2s. 6d. per day and 7s. 6d. for week-ends. Attention is drawn to the fact that any member of the Society may become a full member of the West Kent Club on payment of the annual subscription of 7 guineas without entrance fee.

During the year several prizes are given: a Silver Spoon is played for each month; the Challenge Cup presented by the Staff in 1922; and the President's Prize. A few matches are being arranged, and it is hoped that many new men will turn out regularly so that a good side can be got together for the Inter-Hospital Cup.

Notices of all meetings are published in the Colonnade, and the Hon. Sec. will arrange partners for new members, if necessary.

Hockey.

Guy's v. Bart.'s.

PLAYED at Winchmore Hill, on Saturday, October 4th, 1924. Won 3—1.

Guy's won the toss and played uphill. For the first twenty minutes Bart.'s were playing by far the best Hockey, but Guy's defended strenuously and, aided to some extent by luck managed to keep the home team out.

Towards the end of the first half the visitors rallied and both goals had narrow escapes, but no scoring resulted.

Guy's attacked immediately on resuming and were soon a goal up, scored by L. T. Barford from a difficult angle. Guy's continued to press and following some poor shooting, Catchpole put them further ahead.

Bart.'s now secured their only point when their outside right shot a beautiful goal which gave Smith no chance. A little later they should have scored again but missed a "sitter" in front of goal. Before the end Catchpole put the issue beyond doubt by scoring again.

The result of this, the first match, was very satisfactory considering the little training and practice the side have had. Smith in goal was very sound, Awdry played a very fine game at back, while Kempe was very safe in an unaccustomed position. Willett at right half kept Milner and Church in an unusually subdued mood, while Howitt in the centre enhanced his reputation. Ford did good work on the left. Of the forwards, Hunt, suffering from Anno Domini and increased avoirdupois, was a long way below form. Curtis made a very successful début, and Cautley worked untiringly in the centre, though he was inclined to muddle his inside forwards. Catchpole played a very useful game and shot two goals, and Barford at left wing played one of his best games. The forward line as a whole however, did not swing the ball about nearly often or hard enough.

It is early in the season to prophesy concerning the team's prospects, but the outlook would appear very promising.

Specialities.

NEW ZEALAND PREPARED CREAM.

WHEN a mother is unable to feed her baby, or has to supplement it by using humanised milk, she will find New Zealand Prepared Cream an invaluable substitute.

There is often great difficulty in getting infants to tolerate and digest a normal quantity of fat, if it is given them in the form of cow's milk, but they are readily trained to take a sufficient allowance when given in the form of New Zealand Prepared Cream, consisting as it does of the most suitable complementary fats and oils in a very fine state of sub-division, including from 10 to 20 per cent. of Cod Liver Oil.

It is recommended by Dr. Truby King, C.M.G., M.B., B.Sc., the well known authority on Infant Welfare, and author of "The Expectant Mother" and "Baby's First Month.'

Messrs. ROUSE & SONS, LTD., 74, Mortimer St., W.1.

AT the present time Thermo-Therapy and Diathermy (to which it is closely allied) are in the fore-front of Medical and Surgical treatment of all kinds of diseases.

It is therefore with interest that we peruse, and recommend to our readers a pamphlet on the "Fischer Combination Electro-Physiotherapeutic treatment Outfits." These are contained in a portable (C) outfit, or in high powered cabinets, capable of serving over 20 different treatments, including Medical Diathermy, Surgical Diathermy (electro co-agulation), High Frequency, Cautery, etc., thus enabling Medical Men to have many remedial treatments in one compact cabinet, taking up a small space only.' They are constructed with oil insulation which permits of continual operation without any fear of breakdown. The wiring is well protected, the switches heavy and of the safety "enclosed" type. There is ample drawer space for the accessories.

Messrs. Rouse & Sons, Ltd., of the above address will be pleased to send further particulars on application.

Marriages.

HINE—LANDER.—On August 27th, 1924, at St. John's Pro-Cathedral, Buenos Aires, James B. Hine to Noele, daughter of Edward Lander, of Jersey, C.I.

SALT—BLAKE.—On July 30th, 1924, at Horley Parish Church, by the Rev. H. T. Lewis, Harold Osbert Salt, L.D.S., Eng., 24, St. Thomas's Street, London Bridge, S.E.1, only son of Dr. and Mrs. Salt, of Marton and Middlesborough to Frances Eleanor, fourth daughter of Mr. James Blake, Arncliffe Lodge, Horley, Surrey, and the late Mrs. Blake, of Darlington.

Death.

PARKIN.—At Carnaby Chalet, Cardigan Road, Bridlington, on October 1st, 1924, Alfred Parkin, M.S., M.D. (Lond.), F.R.C.S. (Eng.), late of 24, Albion Street, Hull.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *October 25th, 1924.* *Number 947*

PASSIM

A VERY senior Member of the Junior Staff spoke to us to-day, an unusual and very gratifying occurrence, and this is what he said: "I have just been reading your "Passim." I can't think how you do it." It sounded just like that, but, as he had been educated at one of the expensive public schools where elocution is an "extra," it may have been "I can't think why you do it." "How you do it" sounded more polite and, overcome with modest confusion, we stopped the lift and alighted at the wrong floor. Nor would we have mentioned the matter had it not occurred to us that among our many readers there may be some who have never suffered the trials and tribulations of an editor. To them we decided to confide the great secret of how "Passim" is written.

It is written in one of the snug alveoli in the College, while London sleeps. No sound is heard save the cheerful crackle of the fire and the light tread of the College Porter as he goes to drag some sleep-drugged wretch from his bed at the summons of the Night-Sister. On one side of the fire sits the Sub-Editor, and facing him, over a quire of foolscap, the Editor. Around them on the floor lie scattered many books of reference—"Benham's Book of Quotations," the English Dictionary, Spurgeon's Sermons, "Alice in Wonderland," and others of that type. Both are wrapped in thought; they are working out ideas. Presently we give expression to ours. "Whatever shall we write for 'Passim'?" we say, and instantly the Sub. replies, "Yes, whatever shall we, Dear Sir." He always calls us "Dear Sir," it is the pet name, by which we are known to our many correspondents. Whatever the subject of their letters, whether they be friendly little notes to say, that one of them has changed his address, or harsh, scolding letters asking what we mean by publishing something very wrong, or informative epistles on some matter of medicine, or invitations to the Annual Exhibition of the Brewers' Association, whatever they be, they all call us "Dear Sir," and beg to remain true and faithful. That is what we find so strange. There is none of our correspondents, who is as faithful as the one, who ill-uses us the most. All this flashes through our mind as the Sub. calls us "Dear Sir," and distracts our attention from the still spotless quire. With an effort we give up that train of thought and concentrate on the quire. A dyspeptic starling, uneasily sleeping on a Maze Pond tree, wakes, twitters, shakes himself and settles himself again to sleep, vowing, we dare swear, that the hops are richer than ever this year and that he must be more careful in his dietary on the morrow. And half dreamily we recall the starlings' evensong as, with a confusion of

thought, the spotless quire takes flight and hovers over the College chimney-pots with noiseless, wide-spread wings and harps and harmony. "What a song, is it love or praise, speech half asleep or song half awake?" we mis-quote and, waking the Sub. with a well-aimed kick we ask "How would it be if we wrote about the Choral Society?" "Very dull," he replies, and we are back again at the beginning. Starting is the great difficulty. Once we have overcome the hardship of $v=u+at$ (in kilowatts), the work becomes easier, but by that time we usually have to tidy ourselves for breakfast.

So we sit on and think and think. If only as much thought were given to the production of Russian Loans and theories on the toxæmias of pregnancy as is given to the writing of one short "Passim"—we forget what would happen under these circumstances, but it would be something very different from what happens now. Every time we find an Election going on we think, together with everyone of our contemporaries, "Now why must this thing happen now, just when the autumn trade is all ready to be spoiled? Will the Electees do anything when they are elected and will it be a good thing if they do it?" The College has just had an election, at least two of the Collegiates say they have been elected, though nobody that we have met has heard anything about it. They say that they have been elected to the College Catering Committee, but, except that the title is conveniently alliterative and would look well on a blazer as "C.C.C. 1924", we do not think that it will do very much. There will still be the same spotless table linen and quiet, faultless service that the College has seen for the last thirty-five years and one free tea a year for the Committee. But gratuitous teas are bad. They taste of the administration of Poplar and pauperise the tea-takers. Far worthier should the Committee take their mugs of ale and pay for them themselves.

The Sub. now gives a wriggle. "What do you say to writing all about the trees in the Park?" he says, "how they stand as solid as the Medical School, though their leaves come down in thousands like the candidates of the Second Conjoint." We say nothing. The GAZETTE Manager keeps a nice little sum of money waiting for possible libel actions and the Sub., knowing this, is always trying to betray us into something thoroughly defamatory. But we are always on guard and he sinks again into oblivion. The great idea will not come. The clock in the tower of Southwark Cathedral clangs out the hours with monotonous regularity, the more light-hearted of the students come home and sing their way to bed, the Sub. sleeps and even the Warden's House is at peace, yet "Passim" is as unconceived as though the journalistic world had ordered compulsory "Passim"-control of the mentally deficient. Our head sinks on our chest and we pursue the Sub. to the land of dreams. Yet somehow "Passim" gets written. It is all very curious.

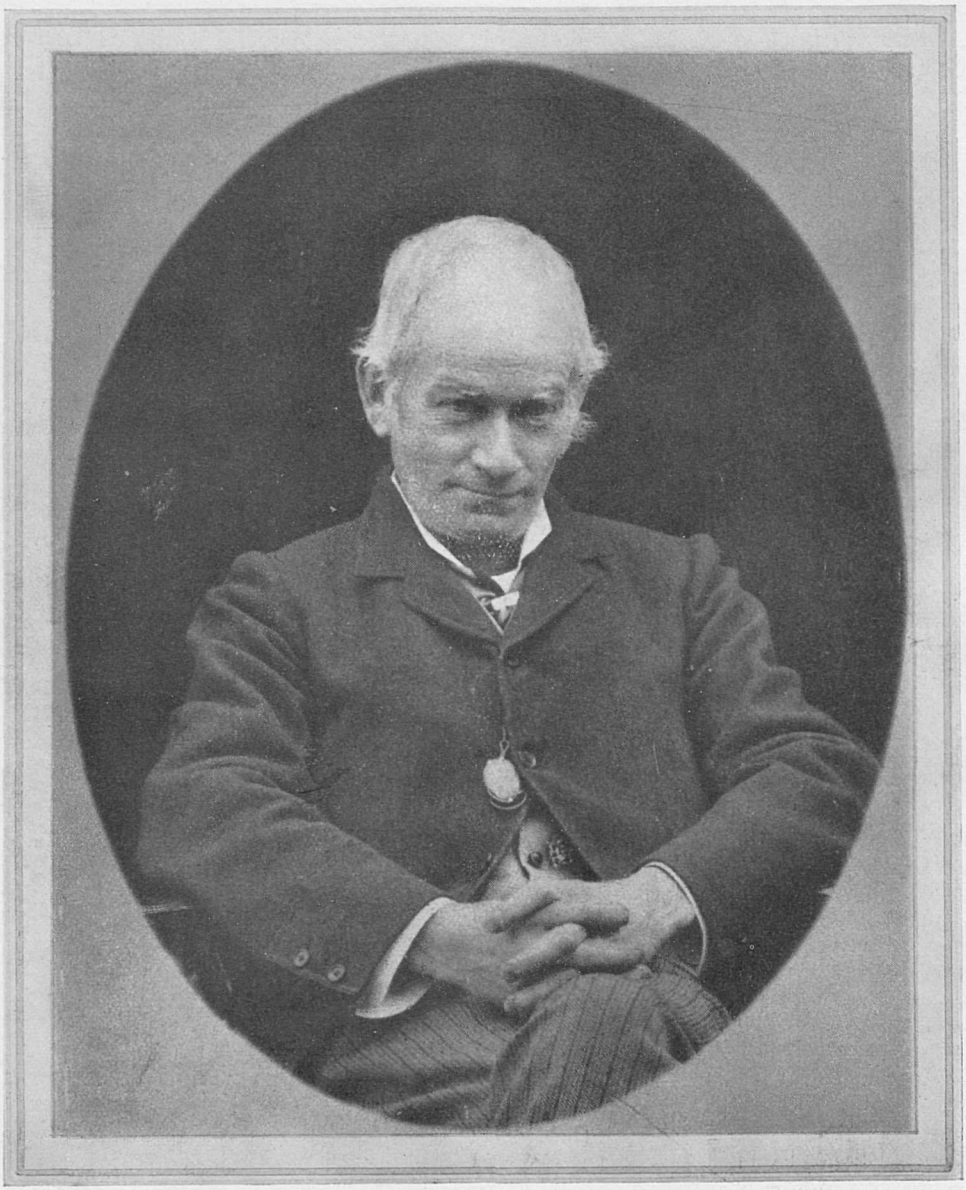
THE following notice has appeared on the old Medical School lift :— .

"PASSENGER LIFT.

This Lift is to be used for Passengers and Patients only. It is not to be used by Wardmaids, Wardsmen, Dispensary Porters or the staff of the Works Department."

We hail this notice with delight. Not so very long ago we had an unrivalled reputation as a propounder of riddles. Our Chiela would sit on our knee and listen with wide-eyed amazement while we explained why the chicken crossed the road and why Mary had a little lamb. Then alas, our Chiela began to grow up and learned a riddle of her own. The puzzle was to tell when was a little girl not a little girl and we never had the heart to say that we knew it was when she was a little pale. This riddle has now become firmly established as first favourite and no other form is allowed. Unless we can ask when or why something is not that thing we must ask nothing. The tragedy has been that in all our répertoire of five conundrums there was not one that could be asked in that form—until to-day. To-day we are ready to regain our old prestige, for when next we are asked if we know any riddles we shall reply with the brand new one, "When is a passenger not a passenger?" and, unless the Superintendent has told her, she will never guess that it is when she is a wardmaid, wardsman, dispensary porter or on the staff of the Works Department.

WE offer our heartiest congratulations to P. D. B. Spence on winning the Covered Court Tennis Championship at Queen's Club, and, with C. Kingsley, the Men's Doubles' Championship as well.



WALTER HAMILTON ACLAND JACOBSON.

Obituary.

W. H. A. Jacobson.

THE death of Mr. W. H. A. Jacobson on September 14th at the age of 77, at Ewhurst, Sussex, robs the Consulting Staff of Guy's Hospital of its most striking personality. The following details of his parentage we borrow from the memoir in the *Times*—"Born at the little house in New College Lane, Oxford, in March, 1847, where his father was Public Orator of Magdalen Hall, Walter Hamilton Acland Jacobson was the second son of the Rev. William Jacobson, and his mother was the youngest of the six accomplished daughters of Dawson Turner, the banker, of Yarmouth. On his mother's side he had as uncles, Sir William Hooker and Sir Francis Palgrave. Shortly after his birth his father became Regius Professor of Divinity in the University of Oxford, and in 1865 was consecrated to the then undivided see of Chester, where, as Dean Burgon fitly calls him, he was the "single-minded Bishop." Jacobson was the last survivor of the Bishop's ten children." We may add to this that Dawson Turner was intended for the Church before he went into his father's business as a banker, and his name still lives on account of his friendship and collaboration with John Sell Cotman in several antiquarian works.

Jacobson was educated at Winchester, 1860 to 1865, and Corpus Christi College, Oxford, where he graduated with first-class honours in the School of Natural Science in 1869. Joining Guy's he became in due course Assistant Surgeon, a post he held for over twenty years, full surgeon for three years, and consulting surgeon for twenty years.

At any gathering of Guy's men there is certain to be some reference to "Pom," as he was invariably called, some tales told, many no doubt true, others embroidered beyond recognition, and some bearing no relation to him. By those who had known him their stories could be viewed in a just perspective. But for those who had not, there would be a tendency to look upon him as a man with marked eccentricities—only not knowing the very sterling and striking character that lay behind his mannerisms.

His literary ability was great and gave a savour quite individual to all that he wrote, whether a memoir, such as that on John Hilton or a purely professional subject.

Few men had read and assimilated more than he had or could dig up so readily from their accumulated store of knowledge the reference or quotation wanted.

The book by which he is best known is "The Operations of Surgery." This at the time of its appearance in 1888 was entirely original in its treatment of the subject. No work up to that time could be regarded as much more than a text-book for students who were working on the cadaver. For the first time he gave to us a work that was invaluable for the surgeon, bringing to it not only his own experience, but that gathered widely from sources outside, and giving us at last the living operation with its difficulties, its dangers and its after results.

In the twenty-seven years that elapsed between the first and the last edition, it has undergone great enlargement and necessarily at the hands of successive editors much change of style though little in method. Those who wish to see it as it left his own hands must, as in the case of Hilton Fagge's "Medicine," look into the first edition.

The exhaustive researches into the literature of the subject that characterised the work, the time and trouble that went to its building up, and the apparently easy lively writing are found in all his books and articles.

No man has given more of himself to his Hospital and his School. His very retentive memory, the clearness of his exposition, his apposite quotations made his teaching a model of what this should be, and crowded his lecture theatre and his out-patient room with students. To show his thoroughness of method one can instance the printed syllabus that he frequently issued to those attending his clinical lectures. Some curiosity as to the lecturer himself, some anticipation and entertainment may have acted as a slight stimulus to us, but it was the certain knowledge that both in matter and manner his lectures would be as good as hard work and a genius for teaching could make them that filled his class rooms.

A habit of his of giving part of the answer leaving the remainder to be filled in, will be

**The Times,* October 2nd, 1924.

remembered by those who attended him, and his "No, sir," was as emphatic as any that Dr. Johnson gave, when the missing words were wrongly supplied.

Underlying his mannerisms was a super-sensitiveness. This was, no doubt, due to a naturally highly-strung nervous system fretted by hard work and sleeplessness—hours in which he should have slept, and could not, he employed in writing, and his sleeplessness may be said in a way to have been both the result and the occasion of much of his literary output.

As he gave the best of himself to us, so he expected the best in return, and he was quick to resent what he regarded as any neglect in this respect or any slight. This would be the occasion for some rebuke, often witty in the extreme, but scathing, and we are bound to admit not always just.

It is interesting to note his point of view with regard to those admonished, taken from a letter of his to the mother of one of his pupils: "and lastly, a very rare point with the young men of the present day, and a very good point, one who when spoken to—rebuke and finding fault are not the words—does not at once argue and make excuses." He did not know apparently how deeply his shafts penetrated, but it was certainly wise to suffer the wound in silence, and to nurse the thought that it was for one's good.

In any other profession his would have been a figure for tradition. Many of his characteristics came readily to the surface as in his gift for witty speech and repartee, in his walk, quick and rather self-conscious, often with head bent sharply or turned to one side to avoid seeing some "enemy," for there is no doubt that for him those who were not with him were against him. There was no neutral ground for indifference.

Behind all this was a kind and generous heart. He was always ready with his advice or assistance for those in need of it, and no one will ever know how large a part of his substance went to those who were in trouble.

His actions in life and his conduct seemed always to be submitted to the approval of his father, the Bishop, whose memory he held in veneration and respect. One name he never mentioned but in terms of the greatest affection — that of the late Mr. Durham. There can have been little in common between the two men, but the name of Durham would at once bring a smile to his face with some words of appreciation or some happy tale. He would speak of him as a great gentleman and a great surgeon.

It was away from his work and its worries that he was at his best. It was then that one discovered his geniality, his warmth of heart and a new and kindly humour. His rapid, nervous speech, his habits of picking up and replying to remarks almost before they were made, his sharply cut wit, everything, in fact, that contributed to a reputation for eccentricity, was laid aside. He would talk of old friends and old scenes with a graciousness and a depth of feeling that enables one to understand the affection that lives on in the hearts of those who knew him.

Perhaps he was most characteristic in his correspondence. Where are all the letters he wrote? We wish we could quote from some of them to show his fine nervous style. It came naturally to him to find the most expressive turn for a sentence, the "mot juste."

It was difficult to know how good his speech was till one had read his letters, and then one heard him speaking with a little less of the reserve that attaches itself to the spoken word, but with the same directness and honesty of purpose.

It was the tragedy of his life to lose his only child, and it led him to sever at once all ties with his professional career. From a letter written to a friend we quote one sentence that gives in his own words his reason for giving up his work. "The loss of that never-failing sunshine, morning and evening, a solace and encouragement in my very hard work has led me to lay it down."

The rest of his life he spent at Ewhurst, in Sussex. We like the picture that Mr. Rowlands* draws of him there, and perhaps among the children of his neighbours he found at last some compensation for his own loss.

'He was very good and kind to the children and had a great and lasting influence over them. On Sundays he taught them the Scriptures with the aid of wonderful pictures, and immediately afterwards taught them how to shoot or play games. They adored him in return and made his latter days happier. Those who had the privilege of visiting him at Lordine Court can picture him still in his beloved garden, suitably but wonderfully clad, bending to his toil, proudly showing a rare and beautiful plant or bringing a weakling to a better place in the sunshine."

**British Medical Journal*, October 11th, 1924.

The following letters and anecdotes have been received from personal friends of the late Mr. W. H. A. Jacobson :—

The writer of Mr. Jacobson's obituary notice in the *Times* said very truly that his death would release a flood of memories. The vision that arises before me, undimmed by the lapse of thirty-five years, is of a spare figure with hat tilted slightly backwards, walking with rapid stride along the Colonnade: then the ascetic face and humourous twinkle of the eye. Another picture is in the wards, and who will ever forget the ominous shake of the head and contemplation of his waistcoat buttons (very handsome ones, by the way) with which he would accompany a grave prognosis?

My first introduction to the wards was as his clerk, and the first operation was a removal of the breast. He told me that he was very particular about the accuracy of his reports and that I had better see what I could do and he would correct it next day. His "Operations of Surgery" had just been published, so I went to the Library, got it down, and, with necessary minor alterations, "lifted" the entire operation from the book. Next day it was shown up and, when he had read it, his comment was "a most excellent report, Sir, I couldn't have written a better myself," and to this day I have never satisfied myself whether he knew how literally true that was. However, he always treated me with great kindness then and during a subsequent term as dresser. Any small service, not precisely "in the bond," would be sure of recognition, perhaps by a handful of cigars extracted from his pocket or possibly by a book to a non-smoker. If he asked a dresser to watch a case in the evening he would produce money to pay for his dinner, and this the wise accepted without demur. Sometimes a new man who did not know his ways would be inclined to resent it and nothing annoyed him more. He would have none of it. "It's your disgusting pride, sir," he would say, "You wish to lay me under an obligation." After that there was nothing for it but to "swallow the insult."

It was a saying amongst us that however much fault "The Master" might find with his dressers he would allow no one else to do so. It happened that two of us had tiresome septic cases for weeks in "Sammy," and regularly twice a week he abused us for their condition and our scandalous neglect of one of his favourite weapons, the "sharp spoon." ("Whatever you take with you into practice don't forget a sharp spoon.") On our last round with him he stopped at these beds and we prepared for a repetition, but to our astonishment he told us that the cases did us the greatest credit and that only our care and attention had saved the limbs from amputation, on which he had once or twice nearly decided.

He had his failings, of course, but there was never anyone quite like him, and "there will be no further reproduction as the mould has been broken." HAUD IMMEMOR.

Dear Sir,

It is with deep regret that I see recorded the demise of Walter Hamilton Acland Jacobson, one of the most excellent gentlemen that ever lived. I had the honour of working under him in 1891. He taught me lots of things. Old "Pom," as we boys called him in those days, always gave us sound advice. In "take-in week" he used to come to my rooms in the College, No. 16, and have a pleasant chat, never forgetting if there was work in hand.

Many a story could I tell you of those days, but brevity is the soul of wit, and I know with many other old Guy's men that we should all say "Dare Quam Accipere" as his motto and Guy's.—Yours truly,

R. E. G. PHILLIPS.

Oakfield, Montgomery,
October 11th, 1924.

Sir,

I notice you are writing an obituary on Mr. Jacobson. The following incident may be amusing enough to add in.

Mr. Jacobson was above all an autocrat, and in the early 90's I remember he took his dressers at times to the Waterloo Hospital for Children and allowed them to operate. On one occasion I myself and a student named D'Albon had this privilege. Mr. Jacobson remarked to D'Albon, "You are the surgeon and you are to treat me as the 'dresser.'" On making the first incision D'Albon awaited the sponge, but there was nothing doing, till Mr. Jacobson said, "You are to give me instructions, for I am the dresser only." To our consternation, D'Albon in a low voice said, "Sponge, 'Pom,'" and throughout the operation maintained the same voice, with "Spencer-Wells, 'Pom,'" "ligatures, 'Pom.'" etc.

"Pom," so taken back, said nothing, but we had a little dinner that night in Cumberland Place.—Yours faithfully, T. BROWN.

64, Leinster Square, W.10.

Dear Sir,

The passing of Mr. Jacobson is a break of another link with old Guy's men. We know your Staff is more equipped now, and the students scientific and drilled, but—ours (I know not yours) had the humanities.

I did not serve directly under Jacobson, but the out-patients offered opportunities for appreciation. No one who observed him could doubt he "postulated a continuity," that he was an aristocrat and no self-made man, even if in his lectures he had never spoken of "my father the bishop—one of the subjects of Dean Burgon's 'Lives of Twelve Good Men.'" Jacobson could be exacting and seemingly haughty, yet I hazard he was essentially humble, and "without humility no veracity." A man walking up to him, between rows of students, with hat on, would meet with resenting disapproval, but many a forlorn woman called forth Jacobson's practical sympathy.

He would stretch across Hyde Park, in the early morning, with a Dresser, on the way to an operation, discoursing to him on life, education and his well-known Conservative politics.

And now in the faded days, I think, if there was one characteristic more than another it was his glow.

RICHARD GILLBARD.

St. Margarets, Dean Road,
Willesden Green, N.W.

The following example of Mr. Jacobson's thoroughness has been sent to us—

Many years ago Betts—well known to old Guy's men—related to a member of the Staff that Mr. Jacobson was accustomed to sleep at the Bridge House Hotel upon the nights before his lectures on anatomy, and that he would draw in coloured chalks upon the blackboard in the School Theatre, often until midnight, the diagrams explanatory of the morning's lectures.

Bibliography of the Published Writings (1877-1923) of Walter Hamilton Acland Jacobson, M.A., M.Ch., F.R.C.S.

COMPILED BY GEO. A. R. WINSTON, WILLS LIBRARIAN.

SEPARATE PUBLICATIONS.

The Operations of Surgery, intended specially for the use of those recently appointed on a Hospital Staff and for those preparing for the higher examinations, 8vo. London, 1889, xv., 1136 pp.

The same, 2nd edition, 8vo. London, 1891, xxxii., 1224 pp.

The same, 3rd edition, 8vo. London, 1897.

The same, 4th edition, 8vo. London, 1902, 2 vols., xi., 727 pp., vii. 726 pp.
Vol. 1, Upper Extremities, Head and Neck, Thorax.
Vol. 2, Abdomen, Lower Extremity, and Spine.

The same, 5th edition (with R. P. Rowlands), 8vo. London, 1907, 2084 pp.

The same,, 8vo. Phila., 1908, 938 pp.;1146 pp.

The Operations of Surgery, A Systematic handbook for the Practitioners, Students, and Hospital Surgeons, 8vo. Phila., 1889, 1006 pp.

The Diseases of the Male Organs of Generation, 8vo. London, 1893, xv., 766 pp.

EDITOR.

Hilton (John). On Rest and Pain; a course of lectures on the influence of mechanical and physiological rest in the treatment of accidents, and surgical diseases, and the diagnostic value of pain, 2nd edition, New York and London, 8vo. 1879, xii., 299 pp.
Also later editions.

(Co-Editor) Guy's Hospital Reports, 1892—1897.

IN PERIODICAL PUBLICATIONS.

Am. J. Med. Sc.=American Journal of Medical Sciences.
B.M.J.=British Medical Journal.
G.H.G.=Guy's Hospital Gazette.
G.H.R.=Guy's Hospital Reports.
Ann. Surg.=Annals of Surgery.

As nearly all the journals in which these writings have appeared are published in London, the place of publication has been omitted in the references, except where it is other than London.

1877.

An Incision of Hydrocele Antiseptically as a means of radical cure in certain cases, *Lancet*, 1877, ii., 309.

1878.

Two Cases of Supracondyloid Amputation of the Thigh by the Method of Gritti, as modified by Stokes, *G.H.R.*, xxii., 3rd series, 1878, p. 211: 219

1879.

A Case of Acute Intestinal Obstruction by a Band: Operation: Death ten days after. With remarks on the treatment of such cases. Paper read before the Hunterian Society, *B.M.J.*, 1879, ii., 491.

Fibro-Chondroma removed from the Sheath of the flexor longus pollici, *Ibid.*, 1879, i., 227.

Syphilitic Myositis, *Ibid.*, 271.

1883.

Varieties of Ulceration of the Tongue, their Diagnosis and Treatment. Abstract of a Clinical Lecture, *B.M.J.*, 1883, i., 96—97.

Pleuritic Effusions and Paracentesis. Abstract of two Clinical Lectures, *Ibid.*, 608—609.

Some remarks on the Minute Anatomy and origin of the Enchondromata of the Salivary Glands, *G.H.R.*, 3rd series, xxvi., 1883, 205—218.

Remarks on the Removal of the Entire Tongue with Scissors by the Whitehead Method, *Lancet*, 1883, i., 629, 676.

1886.

Suprapubic Cystotomy, *B.M.J.*, 1886, ii., 621.

Suprapubic Lithotomy by the Modern Method, Four Cases, *Ibid.*, 759—761; 815—817.

On Middle Meningeal Hæmorrhage, *G.H.R.*, 3rd series, 1886, xxviii., 147—319.

A Case of Suprapubic Lithotomy, with remarks on the operation, Proc. Roy. Med. Chir. Soc., 1885—6, new series, ii., 93—100.

Also Med. Chir. Trans., 1886, lxix., 377—383.

A Case of Suprapubic Lithotomy, *B.M.J.*, 1886, i., 643.

With J. F. Goodhart. Frederick Horatio Akbar Mahomed (1849—1884), In Memoriam, *G.H.R.*, 1886, 3rd series, xxviii., 1—10.

1887.

[John Cooper] Foster, [1823—1886]. In Memoriam, *G.H.R.*, 1887, 3rd series, xxix., 39—57.

1888.

Some remarks on Tongue Cancer, and the chief operations for its removal, *Am. J. Med. Sc.*, Phila., 1888, new series, xcvi., 232—245.

Some Points of Practical Importance in the Operative Treatment of Rodent Ulcer, *Ann. Surg.*, St. Louis, 1888, viii., 101—106.

1889.

Enlargement of Thyroid, *B.M.J.*, 1889, i., 1295.

Excision and Erasion of the Knee in Children, *Ibid.*

Radical Cure for Inguinal Hernia, *Ibid.*

A Case of Loose Body in the Knee-joint formed by an Injury, *Lancet*, 1889, ii., 363—365.

The Pre-Cancerous Stage of Cancer of the Tongue, *G.H.R.*, 3rd series, xxi., 1889. 245—266.

Four Cases of Nephrolithotomy, *B.M.J*, 1889, i., 712; also *Med. Press and Circ.*, 1889, new series, xlvii., 327—329, and Trans. Clin. Soc., 1888—1889, xxii., 198—213.

On Cases of Nephrolithotomy, *Lancet*, 1889, i., 632.

On the Radical Cure of Inguinal Hernia, *Ibid.*, 1137.

On Excision and Erosion of the Knee in Children, *Ibid.*

On Foreign Bodies in the Stomach, *Ibid.*

On Enlarged Thyroids, *Ibid.*

1890.

Clinical remarks on the Symptoms and Conditions which justify Nephrolithotomy, the chief condition simulating Renal Calculus, and some practical points in the Operation of Nephrolithotomy, *B.M.J.*, 1890, i., 117—120.

Surgical Sequelæ of Fever, *B.M.J.*, i., 482.

With J. W. Washbourn. Two doubtful cases of Tuberculosis, in which the Diagnosis was cleared up by inoculation, *G.H.R.*, 3rd series, xxxii., 1890, 289—298.

On Multiple Exostosis, *Lancet*, 1890, i., 547.

Surgical Sequelæ of Fevers, *Ibid.*

On Popliteal Aneurysm, *Ibid.*, 654.

1891.

Eight Cases of Lumbar Nephrolithotomy, *B.M.J.*, 1891, i., 853; *Lancet*, 1891, i., 881; *Med. Press and Circ.*, 1891, new series, li., 375—377; Trans. Clin. Soc., 1891, xxiv., 155—173, 1 pl.

With G. Newton Pitt. A Case of Pancreatic Cyst, successfully treated by Laparotomy and Drainage, *B.M.J.*, 1891, i., 1284, also Med. Chir. Trans., lxxiv., 1891, 455.

1892.

John Hilton, [1807—1878]. In Memoriam, *G.H.R.*, xxxiv., 3rd series, 1892, xxxviii.—xcii.

1894.

Five Cases of Calculi, *Lancet*, 1894, ii., 978.

Operation for Bullet Wound of the Parietal Lobe, *Ibid.*, 1894, 1157; also Trans. Clin. Soc., xxviii., 1895, 247.

Five Cases of Digital Chancres occurring in Medical Men, *G.H.R.*, 1893, l., 49—90.

1895.

A Case of a Bullet Wound of the Left Parietal Lobe with few Symptoms, Trans. Clin. Soc., 1895, xxviii., 247—249.

Operation in Acute Intestinal Obstruction, *Lancet*, 1895, i., 934.

Arthur Edward Durham, In Memoriam, *G.H.R.*, 1895, 3rd series, xxxvii., xlii.—civ., Port.

Some Points connected with the Radical Cure of Hernia, *G.H.G.*, 1895., ix., 489.

1896.

With S. D. de Mesquita. Case of Epithelioma of the Neck, probably arising in a Relic of one of the Branchial Clefts. Branchiogenic Carcinoma of Volkmann. Two operations. Recurrence. Spontaneous Disappearance of the Growth, *G.H.R.*, 1896, xxxviii., 3rd series, 19—44.

Epithelioma of the Tongue, *Clinical Journal*, 1896, viii., 87—89.

1898.

Acute Pancreatitis, *B.M.J.*, 1898, ii., 1816—1817.

1899.

Pancreatitis, *Lancet*, 1899, i., 1633.

1900.

Some remarks on the question of early operation in Acute Appendicitis, *Polyclinic*, 1900, iii., 320—339.

1901.

On some Practical Points concerning Lupus Vulgaris, especially with reference to its Treatment, *G.H.G.*, xv., 1901, 85—109.

1902.

On Gonorrhœal Arthritis, *G.H.G.*, 1902, xvi., 85—105.

Case of Congenital Cavernous Angeioma of Right Hand, Ligature of Brachial, and Five Months later, of Radial and Ulnar Arteries. Cure Permanent Ten Years Later, *G.H.R.*, 1902, xli., 3rd series, 13—24.

1903.

Some remarks on the Accuracy in Diagnosis, or Clinical Precision, *G.H.G.*, 1903, xvii., 382—396.

Some Practical Points in the Pathology and Treatment of Tuberculosis of the Testicle, *Ibid.*, 417—485.

Tuberculosis of the Testicle, *Polyclinic*, 1903, vii., 158.

Inguinal Hernia associated with Meatus Urinarius, *Ibid.*, 157.

A few lessons from fifty cases of operation for Carcinoma of the Tongue, *Practitioner*, 1903, lxx., 604—729.

1911.

John Hilton, *G.H.G.*, 1910, xxiv., 496—503.

Horace Bruce Marriott.

O.B.E., M.R.C.S., L.R.C.P.

Late Surg.-Capt. R.N.

TO very many men who were at Guy's, or indeed at other London Hospitals during the '80's, the death of "Trojan" Marriott will be felt as a personal bereavement, even though they may not have had personal contact with him for many years.

He was a man of strong personality and with characteristics which impressed themselves deeply on all who met him, so that to have known him even 30 or 40 years ago would mean a happy memory of a man one never forgot.

He was a good athlete and, of much more importance, he was the best type of good sportsman, whose outstanding characteristics could be summarised in unbounded kindliness and a never-failing fund of humour which was always of a harmless character.

He was born in 1863 in the rural village of Rendham, Suffolk, of which his father was the vicar. His father's forbears had lived in Suffolk from early times, and his mother, whose maiden name was Bruce, was of Scottish descent. In 1873 Horace Marriott, as a small boy went to the Fauconberge School, Beccles, where he first played Rugby Football. In 1874 he entered the old Blackheath Proprietary School from which the Blackheath Football Club sprung, and which produced so many noted Rugby players. He was there seven years, and worked his way through every cricket eleven and football fifteen until he was captain of the first fifteen and in the first cricket team. He was contemporary there with the three Spurling Brothers who afterwards were such prominent members of the Blackheath and English fifteens. At school he got his peculiarly appropriate nickname of "Trojan," which stuck to him all through his career till his death.

Following the example of many Blackheath schoolboys he entered Guy's in 1881. He captained the Hospital Rugby team which, after a long interval won the Hospital Cup in 1885. Sir Alfred Fripp was also a member of that team, and the writer, who entered Guy's the following year, well remembers being told by him that the chief reason why the Cup was won was the keenness imbued into the men by the leadership of "Trojan," who got them to practise and train and organised them into a winning team. At cricket he was a good wicket-keeper, and sometimes played for Guy's.

He afterwards played football for the Blackheath Club, as did his two brothers, one of whom, C. J. B., is so well known as the old International, and past President and Secretary of the Rugby Union.

He always prized his friendship with the late Mr. W. H. Jacobson, who so recently died, and who was bound to be attracted by Marriott's kindliness and honesty. On his advice he took an assistancy in the country for a year or so when he qualified.

After several voyages with the P. & O. he passed (second on the list) into the navy, and served in most parts of the world. At the outbreak of war he was at Malta where the wounded were brought later on from Gallipoli; and one has heard from others, but not from him, how unsparingly he worked himself amongst them.

Later on he was in the *Resolution* in the North Sea, and it is likely that the exposure there, after coming straight from indoor work in a hot climate impaired his constitution and resistance. After the war he retired from the navy and lived at Epsom, Surrey.

He died as he had lived—lovingly thoughtful for others. To avoid anxiety to his relatives, especially his only sister who had gone through much sorrow, he concealed from them all knowledge of an impending operation. When convalescing from this he got pulmonary embolism and died in a few minutes, without any of his relatives or friends knowing he had been ill.

"Trojan" Marriott was kind in thought and deed to all and sundry; generous to give and in appreciation of others, always ready with an excuse for others' lapses, always putting the best face on a poor outlook and always making the best of a bad job.

He was unobtrusive and absolutely unassuming, and did not know how to refuse anyone in need.

He had a comical humour which infected everyone who was with him, so that they felt all the better, no matter how depressed or ill-humoured they might be. He was a marvellous tonic.

Towards the end of his time at Guy's, when he was captain of the United Hospitals' team, he was probably the best known and best liked

man at the London Hospitals, not excepting the Presidents of the Royal Colleges or anyone else.

He had a laugh which was emitted in a series of spontaneous explosions and was as irresistible to others as it was to himself. One sometimes got extraordinary instances of this when "Trojan" would be sitting unnoticed in a corner of a hall at a Smoking Concert or similar gathering. Something would tickle his humour and his explosions of laughter would break forth. In one minute four or five hundred men would be rocking in convulsive roars of laughter—not at the performer, but because "Trojan's" laugh made them.

In the writer's experience it was an unparalleled expression of merriment which carried all before it.

In Fripp's year of captaincy we went on tour to Bradford and Huddersfield, and Marriott, although out of his year, formed one of the team. The writer was secretary, and had some thirty or forty pounds of club monies in his possession to pay current expenses, and which as a matter of fact were locked in the hotel safe.

One evening most of the team were playing poker in a private room at the hotel, when some one as a practical joke rushed into the room and said, "Fatty has been robbed of all the club money." Consternation reigned and the comments were emphatic and severe. "Trojan" solved the matter quickly and quietly by saying, "We will have a whip round and raise this money amongst ourselves, and don't let a soul outside this room know a word about it."

It was just a little incident, but it illustrates so well the character of the man. Deficient maybe in what is called worldly wisdom, but showing the simple kindness of a loyal and generous heart in its unselfish thought for others.

And so he lived all through and so he died, and leaves a memory with those who knew him of a man with nothing but good in him, who was not merely popular, but was loved for his attributes of simplicity and good-fellowship and his innate habit of never missing a chance of doing a bit of good wherever and whenever it could be done.

A. ALLPORT.

Correspondence.

SIR,—Would you care to put in the GAZETTE a modification of the operation for hydrocele—which I have found very useful out here.

Owing, probably, to careless surgery, but largely also to the black man's resentment of any bandages whatsoever, hæmatocele or great serous effusion was very frequent after any ordinary dissections of the hydrocele sac.

It is very difficult to explain in Arabic, such as I possess, to the man that he is really cured when he possesses one or two tense and painful halves to his scrotum—still more difficult if it suppurates, as you would expect it to do if you saw some of our theatres.

What I now do is to make an incision through the scrotum and sac just large enough to deliver the testicle and turn the sac inside out. I then wipe over the whole of the secretory epithelium with pure carbolic—taking care to destroy the epithelium everywhere. The excess carbolic is removed with a swab dipped in absolute alcohol. The edges of the incision in the sac and fascia over it are crushed with Spenser-Wells forceps all the way round. The tunica vaginalis is again brought into its normal relation to the testicles and the only sutures required are those in the skin of the scrotum itself.

I have found this answer very well and though I have not been able to follow up any cases for more than three months, I have not found any recurrences within that period.—Yours sincerely,

DAVID S. DAVIES.

c/o Medical Department,
Khartoum, Egypt.
September 21st, 1924.

Notice.

The Liverpool and North Western Guy's Re-Union Dinner will be held at the North Western Hotel, Lime Street, Liverpool, on Wednesday, 12th November, at 7.15 p.m.

Price of Tickets 12s. 6d. exclusive of Wine, to be paid at the Dinner.

Will those wishing to attend please notify me.

HORACE MATHER,
Hon. Sec.

73, Rodney Street,
Liverpool.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

Obscure Pyrexia.

Clinical Lecture by DR. J. A. RYLE.

GENTLEMEN,—Last week I was asked by one of your number if I could find an opportunity to discuss the investigation of fevers of obscure causation. It is a good topic, and its importance may to some extent be gauged by the comparative frequency with which it is chosen as a subject for clinical lectures.

To the best of my recollection my own interest in it was first stimulated by a lecture which was delivered by Sir William Hale White in this theatre thirteen years ago, and which you will find reported in the GAZETTE of 28th October, 1911. Since then I can honestly say that I have found few problems in medicine more fascinating than those which we may well call the "pyrexial puzzles." They provide one of the best forms of mental exercise, and from the patient's point of view their solution is often a matter of very real importance. In the course of ordinary practice you will find yourselves confronted by innumerable cases of fever of short duration. From lack of more accurate knowledge it is customary to label these as "febricula," "feverish cold," or "influenza." Fortunately, most of these fevers are comparatively innocent, and our failure to recognise their cause seldom brings harm in its train. We will not, therefore, spend time in considering them.

The fevers of long duration are much less frequent, but it is most important to recognise their cause. In times of war and in tropical and sub-tropical countries their incidence is very much greater, and they become one of the leading causes of sick-wastage. Most of you know that in the Army it is customary to apply certain descriptive labels to the cases of men evacuated to hospital—labels such as "V.D.H." (valvular disease of the heart), "D.A.H." (disordered action of the heart), and "P.U.O." (pyrexia of unknown or uncertain origin).

In the recent war the sick-wastage from "P.U.O." on the western front exceeded the sick wastage from every other condition excepting wounds.

In time it was, of course, recognised that most of these fevers were to be traced to the activities of the body louse, the carrier of trench fever. Nevertheless among all these cases there were continually lurking other and more serious forms of epidemic fever. For this reason the Medical Services were at great pains to ensure that the causes of pyrexia should remain obscure for as short a time and in as small a proportion of cases as possible.

Ambulances, mobile laboratories, clearing stations, and general hospitals were continually engaged in weeding out cases of typhoid and paratyphoid, cerebro-spinal meningitis, influenza, and other fevers of a sinister nature.

From time to time in taking your case-notes in the wards you will come across an old Boer war veteran who will tell you that in that campaign he suffered from "slow continuous fever," or some other malady of equally vague nomenclature. A veteran from the recent war will probably be more precise and may even tell you whether he had a "Para A" or "Para B" infection. These little things serve to mark the progress of medicine and to indicate the greater accuracy which is being attained in the classification of fevers.

It would be impossible to discuss the multitudinous causes of fever in the space of a single hour, but I have drawn up a classification of the main causes which may be of help to you and which will aid our considerations in the remaining part of this lecture.

CAUSES OF PYREXIA.

1. *Infections*—A. General (typhoid, septicæmias, infective endocarditis, miliary tuberculosis, syphilis, malaria); B. Local (pneumonia, pulmonary tubercle, deep-seated pus, infections of urinary and biliary tract).

2. *Certain Obscure Diseases in which infection very probably plays a part* (Addison's anæmia, Hodgkin's disease, leukæmia).

3. *Internal Hæmorrhage* (hæmatoma, hæmothorax, bleeding ulcer, etc.).

4. *Interference with Heat Regulating Mechanisms* — A (cerebral trauma, hæmorrhage, etc.); B (sunstroke and heat stroke).

5. *Certain Drugs* (belladonna).

6. *Malignant Disease* (especially malignant disease of the liver).

7. *Cirrhosis of the Liver.*
8. *Hysteria* (?).
9. *Fraud.*

In far the greatest proportion of all cases fever is due to some kind of infection, but infection, as this list will remind you, is not the only cause of fever. Hæmorrhage, interference with the central or peripheral heat regulating mechanisms, certain drugs, malignant disease, and cirrhosis of the liver, may all cause fever. In the case of the last named it is, however, well to remember that pulmonary tuberculosis very commonly complicates cirrhosis. Against hysteria I have placed a query, and that is because I have never yet seen a case of hysterical pyrexia.

Sir William Hale White, in the lecture already referred to, describes two cases of hysterical pyrexia in which the evidence seems very conclusive. By fraudulent pyrexia we mean that which is produced by malingerers or unbalanced persons with the aid of hot bottles, a cup of tea, or other means.

This rough classification will serve to remind you of the possibilities. In no condition in medicine is it more important to carry about in some convenient compartment of your brain a list of such possibilities. Many of the conditions in the list are rare; in others the diagnosis will seldom be obscure. In Addison's anæmia, for instance, the diagnosis will not often be in doubt for long, and in conditions like cerebral trauma or hæmorrhage we do not pause to discuss the cause of the pyrexia.

Before going more intimately into the investigation of obscure pyrexias, let me show you some charts and give you extracts from the notes of certain cases of pyrexia illustrating common difficulties and pitfalls.

The first case really presented no great difficulty, but there were certain features which might have led us astray. The chart (Chart 1) does not look particularly interesting. The patient, a young man, aged 19, was recently admitted into Stephen Ward on the 8th day of a febrile illness, with the complaint of slight headache and of being generally "run down."

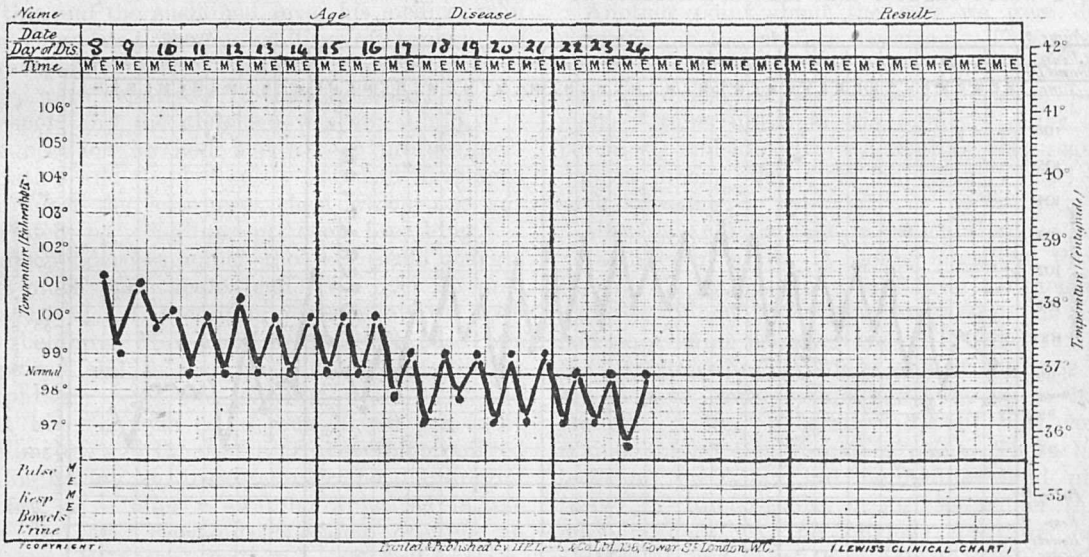


CHART 1. Mild Typhoid Fever.

At an earlier stage of his illness he had had sore throat, and for a day or two he had suffered from diarrhœa. These symptoms, however, were not present when he was admitted. The spleen was palpable and three or four rose-coloured spots were noted on the trunk. We therefore felt fairly confident in diagnosing typhoid fever, although he lacked the more serious symptoms of the disease which you find described in the books. In regard to all the infective fevers it is important to remember that there are always mild as well as severe varieties and that the former, because of their very mildness, are apt to be overlooked. My reason for showing you this chart is because

it belongs to one of these mild cases. If you had seen such a case in his home with a history of sore throat, and slight continued temperature, you might, not unreasonably, have concluded that he had some pharyngeal or tonsillar infection, or perhaps the case might have been regarded as one of "influenza," and the omission to recognise it as typhoid fever might have had serious consequences. This boy, as a matter of fact, is carrying typhoid bacilli in his urine and would therefore have been a danger to other people. The whole of his illness was finished by the 16th day and there was no relapse. If you were to ask me about the important features of this case I would suggest that the very absence of his serum agglutinated the bacillus typhosus in a dilution of 1 in 200.

Here is another case. A young girl, aged 15, had for several months been extraordinarily sleepy. She would even fall asleep at meal times. Apart from this and a poor appetite and a tendency to diarrhœa, there had been no pronounced symptom. During the past fortnight she had been running a swinging temperature ranging as high as 102 and 103, but she had not complained of anything beyond a slight headache, and apart from revealing fulness in the lower abdomen and a general resistance there, the physical examination was negative. Her mental condition was quite alert.

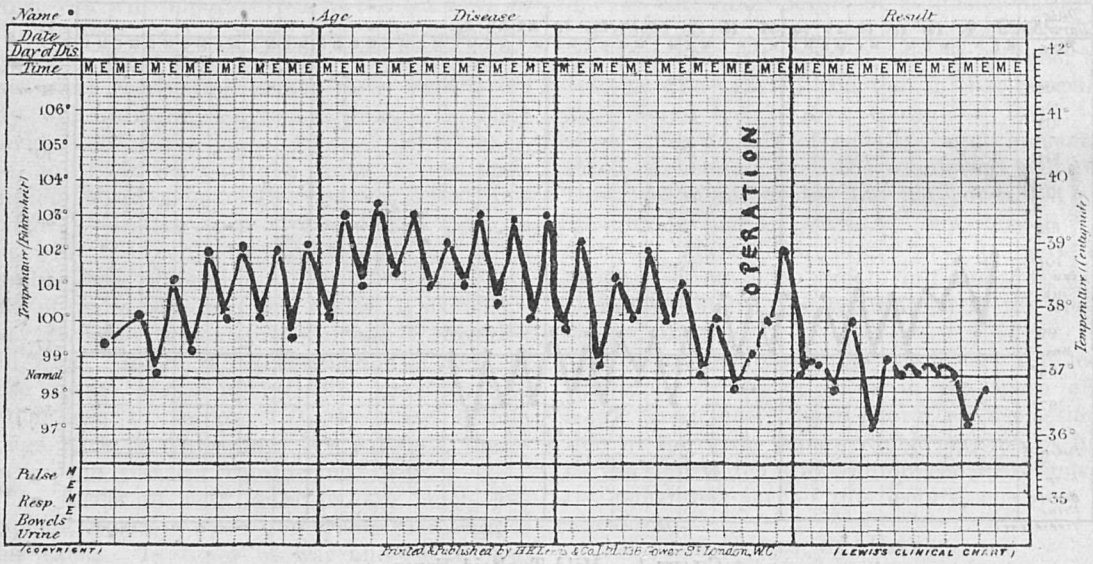


CHART 2. Abscess in Perinephric Tissues.

symptoms apart from fever, was an important point and one which ought always to make us think of typhoid fever.

Tuberculous patients are more apt to present some other symptom such as pain, sweats or cough. Septic cases are also more likely to have localised pains, rigors, or sweats. In trench fever one of the most important differentiating features was the presence of severe pain somewhere, either in the legs, or in the region of the spleen, and I personally was always much more suspicious of fevers in which such subjective symptoms were lacking. In the case of this boy, cultivations from the blood grew the bacillus typhosus, and at a later stage The tongue was clean. The spleen could not be felt and she had no spots. There was no leucopenia, which further helped to exclude typhoid fever.

The family history was important because in the immediate family of the patient three gave a history of tuberculous lesions. On the strength of this and the previous long story of vague unfitness with diarrhœa, I concluded that the patient was suffering from deep-seated tuberculosis involving the abdominal glands. Radiograms which were taken later also showed shadows suggesting enlargement of the peribronchial glands. A typhoid patient with fever of that degree in the third week would have

been more seriously ill and would probably have presented other characteristic features.

Here is a chart (Chart 2) of another case which takes us from the beginning to the end of the serious part of the patient's illness. The patient was a young man aged 25. He had previously been very active and healthy. The story was as follows: He had been ill for a fortnight with swinging pyrexia showing big daily remissions ranging from 101 to 103. His illness started "like a chill." There had been a little cough throughout and some mucoid sputum had been examined for tubercle bacilli, but with a negative result. There had been no actual pain, but tenderness had been noted under the left rib margin, and on account of this and the sustained fever his medical man had suggested the possibility of typhoid or paratyphoid fever. Agglutination tests, however, were negative. He had no diarrhœa and no spots and the abdomen was not tumid. On one occasion he had had a very profuse perspiration and just before my visit had developed pain over the left lower chest which was aggravated by coughing or deep breathing. I found tenderness under the left costal margin and much more acute tenderness over an area the size of a two shilling piece below the 12th rib behind. Movement at the left base was impaired and so was the air entry, as if the diaphragm were not moving well. I found that his leucocyte count was 20,000 per cubic millimetre, and thought that everything pointed to his having an abscess under the diaphragm. A few days later a swelling appeared in the loin and Mr. Rowlands operated, opening an abscess about the size of a golf ball. Here, then, was a case of deep-seated staphylococcal abscess producing a temperature simulating such continued fevers as typhoid fever. I have never myself seen a case of typhoid fever in which there was marked tenderness in the neighbourhood of the spleen.

What were the important points in this case? The leucocyte count was most important because there would have been a leucopenia if it had been a typhoid infection. If you have a patient with a 20,000 leucocyte count and he has not got pneumonia or general septicæmia, he has an abscess somewhere. Apart from this the most important point was the localised tenderness under the 12th rib. In any case of obscure pyrexia, especially if there is anything to indicate a septic origin for the disease, it may repay you to go over the patient carefully in search of a tender spot. Ask first if there is pain anywhere and if so, look particularly for tenderness in that neighbourhood, but failing this make a more systematic search. I remember well another case in which this procedure was very helpful. The patient had a severe streptococcal septicæmia followed by a local infection of a knee-joint which had been drained. However, she continued to run an irregular pyrexia and was very ill. Sir Thomas Horder was eventually asked to see her and found a small tender spot in the thigh, and advised an incision over this. This was done and an abscess the size of a hazel-nut was found and drained. After that the temperature became normal.

Another point about the case we were discussing was the profuse sweating. This symptom, together with the chest pain, had also caused anxiety, as there was one case of pulmonary tuberculosis in the family. After tuberculosis and infective endocarditis deep-seated pus is among the most important causes of such sweating.

Here is another case in which the pus was of a different kind. A young man was taken ill with slight sore throat and fever and general malaise. When I was asked to see him he had had an evening temperature of 101 and 102 on the two preceding evenings and at the time of my visit the temperature had gone up to 103. He was feeling generally ill, but now complained of no sore throat or pain. There had been no shivering, but he had sweated profusely. Although his throat was redder than normal there was no obvious tonsillitis and nothing to be seen there which would satisfactorily account for his temperature. The spleen could not be felt and there were no signs of pulmonary or cardio-vascular disease. The urine was chemically normal. The leucocyte count was 7,800. For the time being we had to label him "P.U.O." We took some of his blood for cultivation though we did not think that he had a septicæmia; the report next day was negative. Now here is a point in the history of which we were aware, but which we had not sufficiently stressed. Two months previously the patient had had gonorrhœa for the second time, but except for a slight early morning gleet he said he had lost all symptoms. There was certainly no orchitis. After running a high temperature for three more days a profuse purulent discharge from the urethra developed and the temperature fell at

once. If we had made a rectal examination we should almost certainly have found a tender prostate. In all probability he had a prostatic abscess which discharged into the urethra.

An Indian Civil Servant who had served fourteen years in India and had had a good bill of health became suddenly ill one day with "a sort of ague attack." He was thoroughly investigated for malaria, but with a negative result. The fever continued, and as he had lost weight and had night sweats, cough and dyspnœa, he was diagnosed as having pulmonary tuberculosis and sent home to England. I found the spleen just palpable, and there was also some guarding and tenderness in the right hypochondrium. The pulse rate was 110, and there was a faint systolic murmur at the apex. A haze of albumen appeared on boiling the urine. There were no signs of active lung disease. At the first examination I queried the possibility of his having a tropical abscess of the liver. He was very tender under the right costal margin, looked sallow and ill, and had complained of sweating. He also showed a slight leucocytosis (13,000 cells per cubic millimetre). Within a few days the diagnosis, which I should have made at first, became obvious, for he developed a to-and-fro murmur in the aortic area and the systolic murmur at the apex became more apparent. These signs, together with the albuminuria, palpable spleen, and the swinging pyrexial curve, showed the case to be one of infective endocarditis. Later he developed petechiæ on the legs and a staphylococcus was grown from the blood. He died within a few weeks.

What lessons can we draw from this case? One is not to be led away by the occurrence of night sweats and loss of weight into supposing that a patient must have pulmonary tuberculosis. Another is not to suppose that a patient from the tropics is necessarily suffering from a tropical disease. A third is to remember that cardiac murmurs may at first be insignificant in infective endocarditis. Some cases, indeed, go right through to their termination without developing murmurs at all.

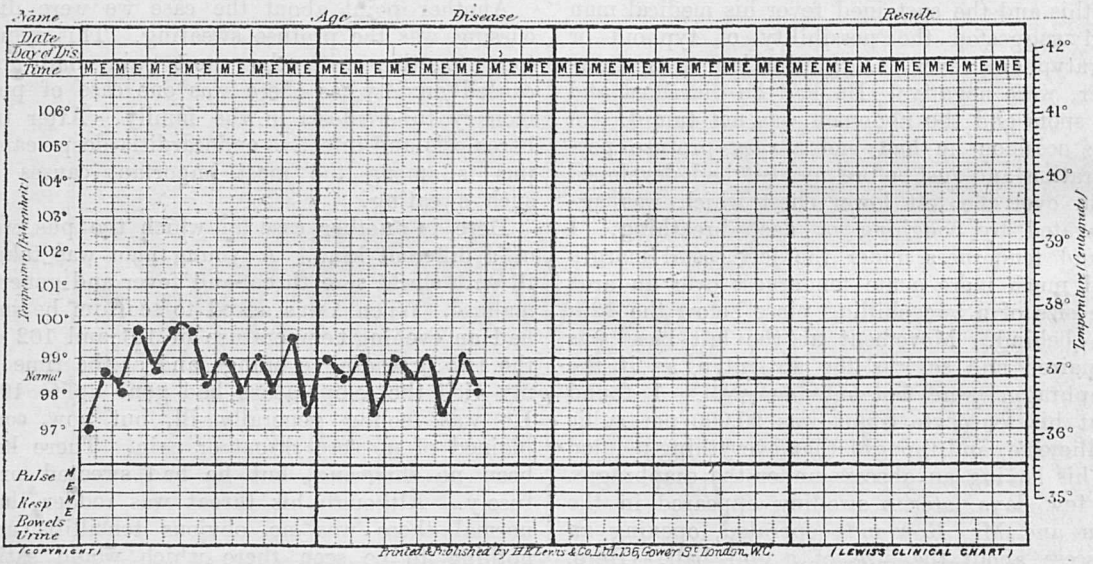


CHART 3. Malignant Disease of Liver.

Here is a chart (Chart 3) showing slight irregular fever from a patient also returned from India. He was aged 50, and in the past had suffered a great deal from amœbic dysentery. He developed pain in the liver region and the liver was enlarged. At a Hospital for Tropical Diseases his liver was explored in several places with trochars, as he was thought to have a hepatic abscess. The liver was very hard and large bosses could be felt on its surface. It was a case of secondary malignant disease of the liver exhibiting fever.

I will now relate another case to you which gave me and other people cause for perplexity. I am not certain to this day whether it was a

case of genuine or "faked" pyrexia. You see the chart (Chart 4) shows a remarkably regular, swinging temperature, and what will appeal to you at once is the extraordinary regularity with which the temperature in the morning was exactly 99, while over long periods the evening temperature was also at a curiously uniform height. The patient was an intelligent but emotional young woman who gave a history of hæmoptysis and loss of weight. According to her story she had started to have hæmoptysis two or three years before and had seen several physicians who had been suspicious about her right apex. The sputum had been examined for tubercle bacilli, but with a negative result. There was no doubt about

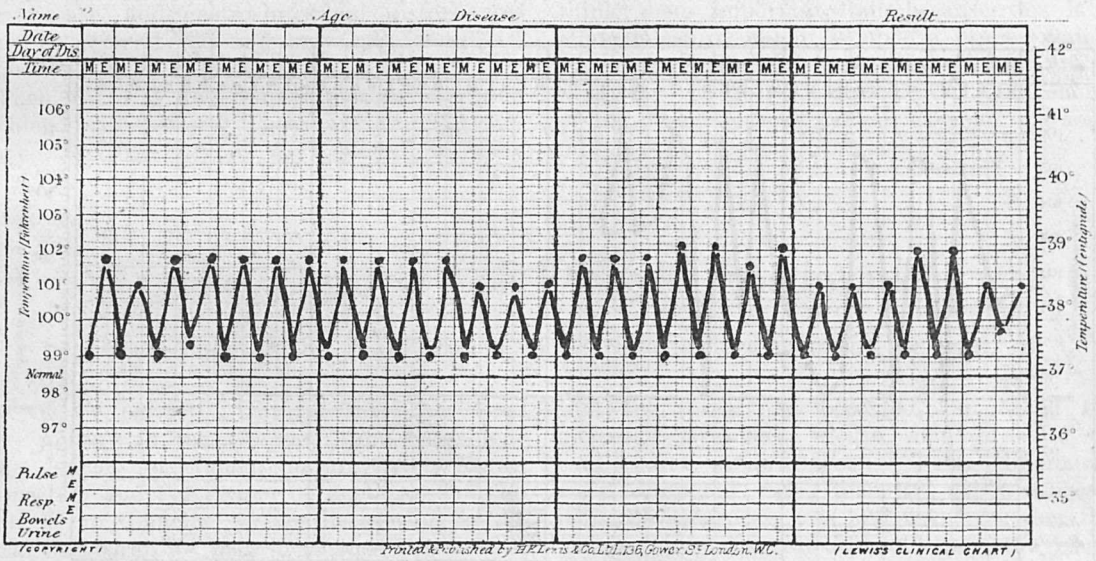


CHART 4.

She was placed under observation in a nursing home and there no rise of temperature was recorded whether taken in the mouth or the rectum or whether she was up and about or confined to bed. She was also investigated in other ways; the chest was X-rayed and the urine cultivated, but we could find no evidence of disease. She did not admit to any deceit. Had she had tuberculosis of the lungs with hæmoptysis, and did we happen to see her when the temperature fluctuations had stopped? Had she had tuberculosis and "faked" the temperature, or did she "fake" both the tuberculosis and the temperature? People should seldom be allowed to take their own temperatures, and certainly not for such long periods.

the truth of her statement that she had lost a stone in weight, because we obtained the weight record from one of the physicians whom she had seen a year or two before. There was also a strong family history of tuberculosis. She brought eight pages of temperatures like the one I have shown, all applying to the previous year, and she declared that her temperature was still varying between 99 in the morning and 100 in the evening. In spite of this she was continuing with her work, had a good colour, and was well-covered. Her pulse was not accelerated. She was not anæmic, and there was no definite physical evidence of disease in the lungs or elsewhere. We advised her not to take her own temperature again.

Here is one more chart (Chart 5) which I have labelled "Fraudulent pyrexia in an emotional subject." You will notice that this record shows excursions as high as 105 and 106, returning within a few hours to normal. I was informed that it had been recorded as high as 108. It was the case of a young woman who was in a house on fire (the temperature was not taken in the burning house). She had to jump from a window to the ground, and in doing so she sustained several minor injuries including a fractured ulna and a scalp wound. She was unconscious for three days.

After her injuries had healed she had pain in the back for many months and was eventually taken into a home for electrical treatment. It was while she was there that she started to run these remarkable temperatures. It was said that these temperatures were taken by trained nurses. A curious observation was that the pulse-rate never went above 85, even when the temperature was 106. These excursions of temperature continued until she was admitted to Esther Ward. From that moment the temperature was normal, until one night when the nurse in the act of taking her temperature was called away. On her return the reading was 103; the position of the hot-water bottle had shifted in the bed, and the rectal temperature, taken immediately, was normal. On another night the same phenomenon was observed. The patient was a very hysterical woman. She stoutly denied any fraud. She had been a source of great interest in the nursing home and had wanted to remain an object of sympathy. No signs of disease were discovered.

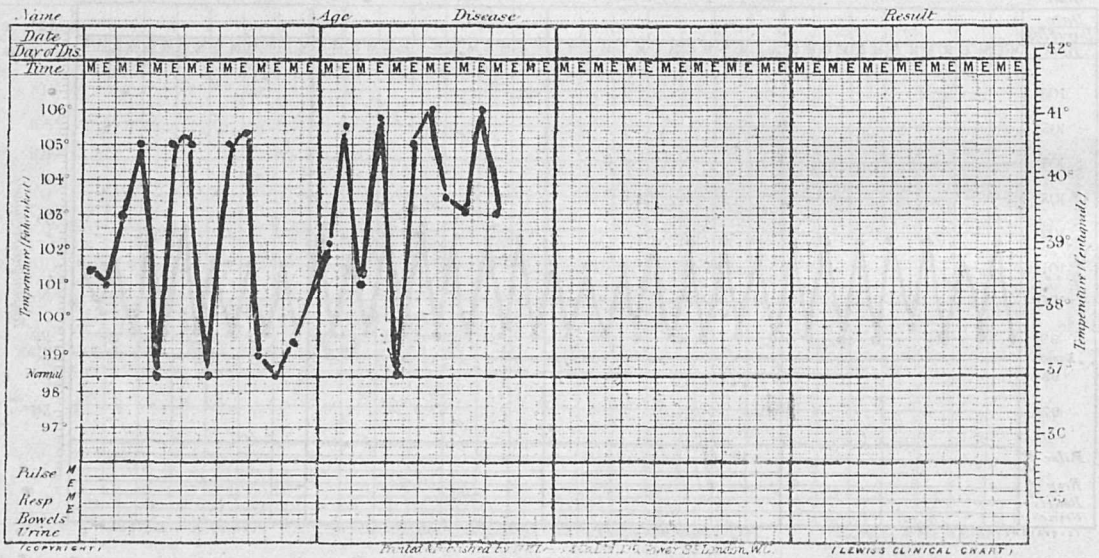


CHART 5. Fraudulent Pyrexia in an Emotional Subject.

In conclusion I want to say a little more about the frequency of the different causes of pyrexia and about the various methods of investigation. Cabot in the chapter of his book on Differential Diagnosis which he devotes to Fevers, makes the statement that 90 per cent. of prolonged pyrexias are due to typhoid fever, tubercle, or sepsis, including under sepsis both local and general infections and infective endocarditis. That is an important statement to bear in mind. In his series typhoid was easily the most important cause, for until recent times it has remained a very prevalent disease in the United States. In this country typhoid has become so rare that it now takes a low place on the list, but it is well to realise that its very rarity renders it liable to be missed.

The most essential elements of every investigation are the case-history and the physical overhaul. Observations of the type of the pyrexial curve (whether continued, remittent, intermittent, or relapsing) and of the pulse-respiration-temperature ratio are also useful. A respiration rate of over 30 per minute in an adult commonly points to a respiratory tract infection, but it is worth remembering that in pneumococcal infections, wherever they may localise, there is a tendency for the respiration rate to be high. Sometimes the pulse is slow in proportion to the height of the temperature and this is supposed to be a feature of typhoid fever. It may be so in the early stages of the disease, but in the second and third weeks a rapid pulse is more common in severe cases.

The leucocyte count may give valuable information. A leucocytosis, particularly if the

differential count shows a preponderance of polymorphonuclear cells, suggests a pneumonic or septic infection. A leucopenia, on the other hand, favours a typhoid-group infection, though it may occur in other chronic fevers.

Investigation of the urine for pus or organisms is often necessary. Chronic bacilluria is a frequent cause of irregular intermittent or relapsing pyrexia. Mild chronic infections of the gall-bladder may also produce intermittent spikes of temperature often accompanied by vague dyspeptic symptoms, malaise, nausea and subscapular pain. Both pyelitis and cholecystitis are more common in women than in men, the former particularly in association with pregnancy. In children, pyelitis, middle-ear disease, and gastro-intestinal disturbances must be remembered and may call for special enquiries.

Then there is the very important question of blood cultivations. These are still not employed as frequently as they should be; they should be performed in any case of sustained undiagnosed pyrexia. The blood should preferably be taken in the evening or when the temperature is highest. If a typhoid-group infection is under consideration, Widal's test should be employed, but you must remember that it takes some time for the blood to acquire its agglutinating properties. In the first week or ten days of the fever it will be of no value and if you see the case early enough you should be able to diagnose typhoid fever by one means or another before the time is ripe for agglutination tests.

I have deferred mention of these special laboratory investigations to the last and have dealt with them briefly, not because I do not think them important, but because this is a clinical lecture, and it is upon a proper understanding of clinical signs and symptoms and a familiarity with possibilities that your choice of the other methods as well as your diagnosis must really depend.

The Discovery of Dickens' Southwark.

Proceedings of the Southwark League for the Discovery of London.

TO be perfectly truthful there has been mutiny in the League. The baser tendencies of human nature have shown themselves and the venom of man has flaunted itself in our councils. After discovering Southwark Cathedral we met to discuss the future. An excellent proposal was made that we should unearth the many places in South London connected with Dickens. So far we all agreed. Then we discovered that no member of the League could possibly be a well-informed guide. I suggested that Mr. George Young should be invited to join the League, and in a speech so full of platitudes that I almost imagined that I was at a public dinner, I assured my fellow members that my friend would "aid us by his wise counsel and add considerably to the strength of the League."

"But he's married," said Clayson, who seemed to carry the meeting with him. Once more I spoke at length in my most pacific strain. I urged that a single slip in a man's career should not remove him for ever from the society of decent citizens. I could not deny that the thing had occurred, but asked for generous treatment. "No man is safe," I said, "not even Clayson." Our differences were composed with difficulty, when Cheeseman, the treasurer, rose and asked whether the member now suggested would pay the usual entrance fee. I could not answer, and, after deciding that a letter should be written, we dispersed. In a few days the following answer was received:—

Gentlemen,

Thank you for the honour you have done me. If I can be of any service to you I shall be glad, but I cannot join your ranks. To be perfectly honest with you I have a conscientious objection to parting with hard-earned money in order to provide a group of dilletante bachelors with a free dinner.

Yours, etc.,

GEORGE YOUNG.

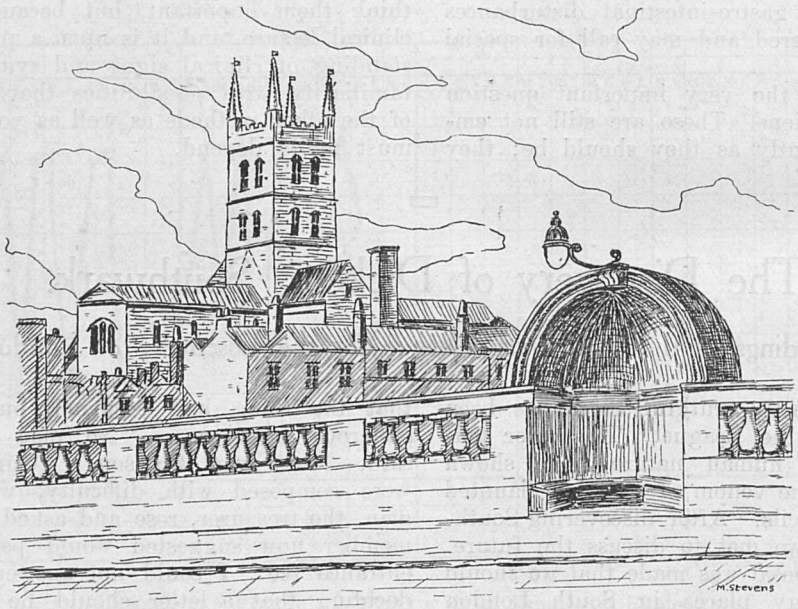
This letter caused a fresh outbreak. Clayson's opinion was that he was flaunting his marriage in our faces. Cheeseman thought

the writer must come from a land where 10/6 is 10/6. I was a little perturbed at the expression "dilletante bachelors" and drew Brook and O'Connor to my side. O'Connor then proposed that Mr. George Young be invited to join us on one voyage and one voyage only. So the League was saved, but it will be seen hereafter that our new friend was not easily forgiven.

Meeting on a Saturday in August in the Cathedral garden we made our way to London Bridge, not the old bridge so familiar to Dickens, but the bridge built in 1830. Here we thought of David Copperfield, whose favourite lounging place was old London Bridge, where he was wont to sit in one of the stone recesses watching the people go by. We looked down in order to recall the "steps . . . on the Surrey bank and on the same side of the bridge as Saint Saviour's Church which form landing-stairs from the river." It was on a platform on the way down these stairs that Noah Claypole heard Nancy's story and told it to Fagin, with the result that she was murdered by the monster, Bill Sykes.

Leaving the bridge, our new comrade pointed to a spot to the right of the Cathedral Lady Chapel. There, we were told, stood the almshouses established for 25 poor women. These were the houses visited by David Copperfield and Mr. Mell on their way to Blackheath and it was here that Mr. Mell played his flute to his mother and Mrs. Fibbitson. No almshouses stand here now, but only warehouses and stores.

It now seemed appropriate to give a thought to those dear young Guy's students, Ben Allen and Bob Sawyer, the former of whom came on pilgrimage with the Pickwickians to London Bridge. Standing outside the Cathedral we tried to imagine him telling Mr. Winkle that he would cut the throat of any gentleman except Mr. Sawyer, who should aspire to the affections of his sister Arabella.



MURIEL STEVENS.

A Recess in Old London Bridge. Now to be seen in "The Park" at Guy's.

The threat seems to lend some justification to the language of dear Mrs. Raddle, who called the young men a "parcel of young cutters and carvers of live people's bodies."

Young now suggested a visit to Guy's to see the haunts of the two students and to see in the "Park," one of the old stone recesses from London Bridge. We all laughed at the suggestion, for Guy's has so often heard our footfall. It seemed more profitable to visit the Borough Market Office, on the steps of which the convivial Ben Allen took short naps in the early morning after seeing Mr. Pick-

wick on his way home after the party in Lant Street. "Can you tell us where that office stood, Mr. Young?" Cheeseman asked. The answer was in the negative, but our guide made a happy suggestion. Following him we went to the office of to-day and sought an interview with Mr. Thomas Haynes, J.P., the Clerk. Now Mr. Haynes is a magistrate, and a very important one, too. His signature will

Daily Chronicle.

Remains of the Marshalsea, Layton's Buildings, Southwark.

exempt you from anything, Income Tax, Death Duties, and impecunious friends, and his assistants are prepared for all emergencies and know how to deal with callers. We were all ushered into a waiting room, No. 1. After a time the magistrate walked apparently into the wrong waiting room, for he greeted us kindly with the words, "So you all object to being vaccinated?" This was too much for everybody. We interpreted it as a studied insult. Burning words of eloquence came to us all. Standing on tables and chairs we denounced our host. Brook's voice has roused many a crowd on a village green and he was useful now. Above the din I heard him repeating, "Treat my friend Clayson as an infant in arms will you?" When the storm subsided Mr. Haynes apologised for his mistake and said he would gladly certify us for Bedlam if that was our wish. Most of us were too exhausted to take up the challenge, so I asked for a private interview with the gentleman of the Bench. He now explained with the greatest courtesy that he could not help us at all. No records remained to show that the offices were ever on the main road from the Bridge to Lant Street. He thought Dickens must have been relying on his imagination. So, humbled and hoarse, we returned to that Borough High Street where Bob Sawyer bought spirits at a wine vault and preceded the bearer thereof "to preclude the possibility of their delivery at the wrong house."

We made our way down towards St. George's. Comrade Young quite obviously wanted to stop at White Hart Yard to discourse loftily on Sam Weller, but we confessed to knowledge. He made a similar pause at the George Inn. Thanking him for the information that Dickens mentioned the Inn in Little Dorrit we carried him along perhaps a little ungraciously. Every now and then I heard some wretched fellow in our party using the phrase "dilletante bachelors indeed," and I felt nervous. After a time we reached Union Street on the right. I insisted on walking down to No. 18 and looking at the fine old building. "A fine house, Mr. Young," I said. He agreed, but wanted to know what connection it had with Dickens. "A very close connection," I explained. "Here lived George Gwilt," I persisted, "the restorer of the Lady Chapel and here lived his father before him. Now George Gwilt was the architect of the Horsemonger Lane Jail in the Newington Causeway and Dickens wrote to the *Times* objecting to public executions at that prison and very soon they were stopped." A smile blended with sarcasm hovered on the Young countenance and we moved back to the Borough High Street. On the right hand side we noticed some old houses which were

there long before Dickens came to Southwark. Here we made a pause in order that our friend might show us the relics of the Marshalsea in Layton's Buildings—which we had already seen. We refused to stop at St. George's Church because four "dilletante bachelors" had been there on a former occasion to visualise *Little Dorrit asleep with her head upon the* register.

Going towards the Elephant we passed Lant Street, where we are assured by the novelist that the inhabitants either let furnished apartments or devoted themselves "to the healthful

Borough High Street.

and invigorating pursuit of mangling." My friend Mr. Walter Dexter suggests in his great work "The London of Dickens" that it was here that Frederick Dorrit lodged at Mr. Cripple's Academy, where there were so many lodgers "that the door-post seemed to be as full of bell-handles as a cathedral organ is of stops."

We drew nearer to the Elephant and stopped for a moment outside Queen's Buildings, Scovell Road, where the Queen's Bench Prison stood for a time after it was transferred from a site near the Marshalsea. It was only demolished in 1862. In the Queen's or King's Bench our good friend Young reminded us that Mr. Micawber was incarcerated. While he was there David Copperfield was living close by and no doubt in Lant Street. Dickens was, of course, telling the troubles of his own family, but instead of mentioning the Marshalsea he wrote of the King's Bench.

Crossing Newington Causeway we found Union Road, where young John Chivery helped his mother to run "a snug tobacco business, round the corner of Horsemonger Lane." A recreation ground now marks part of the site of the old Horsemonger Lane Jail. Having witnessed a public execution here Dickens wrote, "I cannot believe that any community can prosper where such a scene of horror and demoralisation is presented at the very doors of good citizens." There are scores of men in the Borough to-day who remember, all too well, the ghastly scenes which Dickens helped to stop. Brook insisted here that we should turn our thoughts for one moment from the great writer. We agreed and let him lead us to the quaintest little corner of London. Between 75 and 77, Newington Causeway he pointed to a narrow passage. Clayson, urged forward by five strong, but slim men, just managed to force his way through this tunnel. No doubt Dickens knew this hamlet of five cottages, but they are practically unknown by the Londoners of to-day. Not only is there a group of cottages, but rabbits and chickens thrive here and trees lend shade to the scene. The reader should discover Worsdale Cottages before he dies.

With thoughts turned back to our original quest we crossed to Southwark Bridge Road and made northwards for the river. Reaching the other end of Lant Street we meditated on the streets here which belong to that little, but famous, district known as The Mint." This was one of the most evil spots in Europe in Dickens' time. It was a sanctuary to which the dregs of humanity drifted. For some reason anyone living within the Mint was beyond the range of the law. Debtors outside were in danger of arrest; within they were safe. Forster, so our guide told us, said that Charles passed through this "Alsatia" every day on his way to and from Hungerford Stairs, where he was employed in the blacking factory. Afterwards, in company with Inspector Field, he visited the common lodging houses of London and learned all about this evil-smelling, criminal area.

We left the main road for a few minutes to visit Mint Street, Quilp Street, and Clennam Street. A large building which still stands here was until recently the St. George's Institution, the authorities of which boasted that they possessed the very copper in which the gruel was boiled for Oliver Twist and his fellow sufferers. The copper is now to be seen at the Southwark Central Library, and it may well be that Dickens saw it in use in his early years. Close by we came upon a building called "The Farmhouse"—a common lodging house known to the novelist and used in his time by "lads and lassies." In more recent days I fancy it has given shelter to another bright star in the world of letters—none other than W. H. Davies, who learned his craft in the libraries of the Borough.

At last we found ourselves back again in Southwark Bridge Road. Reaching the Bridge we thought of its iron predecessor known to Little Dorrit because she loved to escape hither from the noise of the street. Here, of course, young John Chivery met her and declared his love. The bridge has another Dickens' connection which takes us back to the days when his father was in the Marshalsea. One day the boy was taken ill at the blacking factory, so ill that it was necessary for him to go back to his attic in Lant Street. Here, at the door of a house "near Southwark Bridge," Charles shook hands with Bob Fagin, his companion, pretending that he had reached home. He practised the deception because he was anxious that Bob should know nothing about the prison. To give an air of reality to the incident he knocked at the door as Bob was disappearing and asked the woman who opened it whether it were the home of Mr. Robert Fagin.

So ended another successful ramble. Peace had brooded over the scene for the most part, and the League will continue. The old members, however, were a little perplexed when Mr. Young, standing on the bridge, bade us adieu with the words: "Thank you for teaching me so much."

T. P. S.

The Perfect Diagnostician.

By GRAMENAPIS.

SCENE: *Surgical Out-Patients. Several students recline languidly around the Surgeon who is distinguished by his white coat.*

Enter a man about fifty carrying a straw bag. Advances, holding his O.P. *letter.*

Opening Chorus by Students: "Sit down on the stool, Dad."

Surgeon O.P. *takes* O.P. *letter and gazes at the man fixedly for a short time, then speaks*:—

Gentlemen,—I cannot impress upon you too forcibly the importance of the so-called "bedside diagnosis." In my student days (*chorus of* "Ah" *by the Students*) the majority of the Staff could make an accurate diagnosis by a mere cursory glance at the patient. Perhaps my friend and colleague Dr. Watson showed particular ability in this respect. He would sometimes make most brilliant diagnoses with absolutely no apparent evidence. "My dear Watson," I would say, "that was stupendous." But I fear the present generation is hardly as proficient.

The patient before us, however, affords an excellent example for such a diagnosis. We will therefore ask him no questions, and formulate our diagnosis without referring to the valuable report of my excellent Ward-clerks, which has been written on the O.P. letter.

Probably the least experienced of you will have no doubt that this patient is suffering from toxæmia and is quite obviously ill. This is of utmost importance in eliminating malingerers.

You will observe that his cheeks are drawn in and hollow, which immediately indicates that he has no teeth. In this class of patient one would expect to find pyorrhœa, so that we may assume that his teeth have undergone spontaneous erosion following the chronic intractable suppurative condition of the margins of the gums, associated with this disease.

I would next call your attention to the delicate plum-colouration of the patient's nose, and the distended venules or stigmata on his nose and cheeks. These stigmata are unusually well defined.

The patient's eyes are sunken, and his conjunctivæ are watery. These as you know are frequent symptoms of cachexia and toxæmia.

You will notice that the patient's mouth is slightly depressed on the right side. This is not due to unilateral facial paralysis, but more probably to heavy pipe-smoking, which, as you will observe later is a frequent concomitant of the disease from which I believe this patient is suffering.

On the lips you will notice a suspicion of blood, which may possibly signify recent hæmatemesis. The patient's icteroid and muddy complexion, and the slight anæmia will aid us in our ultimate diagnosis.

That the patient has been subjected to some emotion or mental disturbance is conclusively shown by his unkempt and dishevelled hair; and by his finger-nails which have been bitten very short.

Irrelevant as it may seem, gentlemen, I would ask you to observe the patient's collar. I assure you, gentlemen, I am perfectly serious about this, although in itself nothing could appear so absurd and remote from our original intention. You will admit, however, that the collar is at least two sizes too large for the patient and that it has been worn for a considerable time. Gentlemen, I have already referred to the patient's mental condition, but even then it is exceedingly doubtful that he purposely bought a collar too large for him. I opine, therefore, that the collar did fit the patient when he bought it, but since then he has grown thinner and lost weight very rapidly. The large size of the collar is thus purely relative.

Nevertheless, you cannot fail to notice the patient's large abdomen. In fact, he has been compelled to unfasten the three lowest buttons of his waistcoat, whereas Fashion, I believe, decrees that only the last button shall remain undone. Also, you will observe that there are in his belt, four recently made holes enabling it to encircle this ponderous abdomen. That *all* the holes have been made recently is indicated by the freshly-cut appearance of the leather; so that we may justly assume that the patient's abdomen has only recently become distended, and that distension has been exceedingly rapid.

Next of all, gentlemen, I would like you to direct your attention to the curious manner in which the patient holds his right hand and arm as he sits here before you.

You will observe that the arm is flexed at the elbow and the fore-arm slightly supinated. The fingers are partially flexed, and with the thumb enclose a space which could readily contain a glass.

The threadbare condition of the patient's coat at the elbow and at the sides indicate that he is a typical and frequent "habitué" of the public bar.

The left hand is no less indicative, for the dorsal surface is devoid of hairs, and has undergone slight keratosis. This is more obvious when comparison is made between the two hands. This, I have little doubt, is due to the fact that after each act of imbibing, the patient wipes his mouth with the back of his left hand which has undergone this natural physiological modification to cope with a new function.

I have already drawn attention to the colouring of the patient's nose.

Finally, gentlemen, I would point out that the patient's boots are new and unusually large, from which I surmise that his feet have swollen considerably, compelling him to purchase a larger pair of boots than previously. This would suggest recent œdema.

Here then, gentlemen, is a patient who unconsciously provides us with sufficient evidence on which to formulate our diagnosis. I will briefly recapitulate this evidence—

Pyorrhœa, alcoholism, a recently distended abdomen, œdema of the feet, cachexia, slight anæmia, hæmatemesis, a muddy icteroid complexion, conspicuous stigmata, and a slightly abnormal mentality.

Had I provided you with this condensed evidence before you would all have diagnosed portal cirrhosis which has arrived at the stage of ascites and œdema of the feet; and I have no doubt that this patient has consulted us for that very disease.

But, gentlemen, the relatively cheerful condition of this patient may detract somewhat from our diagnosis. I can only say that such cases do occur, in which a serious illness betrays no characteristic symptoms, thereby providing the celebrated exception which proves the rule.

I had not noticed previously that suspicious looking bottle in the patient's bag which rather tends to substantiate our already well-founded diagnosis.

. . . . . .

The man has sat with an expression of vacant astonishment on his face during this dissertation on his condition, but now, hearing the reference to the bottle he speaks—

But, doctor, ther ain't nuthink in the bottle. I only brought it for medicine. Ye see, I wants ye to 'ave a look at my little nipper. He ain't been up to much these last few days, an' I thought as 'ow a drop o' physic 'ud soon put 'im orlright. 'Ere Erb., where the —— where are yer?

(*Voice off*)—Comin' faver.

Sport.

Rugby Football.

Guy's v. Gloucester.

ON Saturday October 11th, Guy's went down to Gloucester with five of their players unable to make the journey and defeated, one thinks for the first time, the famous Gloucester team on their own ground, by 1 goal to nil.

The match was, as you already observe, a very low scoring one and for that reason difficult to detail, so one will occupy the allotted space by just meditating in print on how to lose. First let it be noted that our try was gained by V. R. Preen and that by converting the try H. Graham-Davies added to his general good play and his tremendous hard work. He was fortunate, too, in the sturdy help which he obtained from R. Fellowes-Smith in the centre. W. Hops was playing in Meissner's place; and when he gets a bit quicker will be more useful. He is physically well fitted for the position. The Gloucester forwards were in better training than our own and stood the strain at the finish better. G. King-Turner was promising: the brunt of the shoving seemed to fall on the shoulders of J. Durr, N. M. Holloway and G. G. T. Tregarthen. At full back P. D. B. Spence was at his very best.

Gloucester, half-way through the first half, lost E. H. Hughes, and played one short for the rest of the game.

Very sad it made one feel on Sunday morning to find a sort of mist gathering over our win. On Monday one opened the local newspaper and the mist had become a fog. On getting a Sporting Paper or two the fog had reached a London "Special.' 'No enthusiasm; damned with faint praise; a good performance if Gloucester had been at full strength; a lucky win, etc. No word about Guy's absentees. No mention about J. G. Van Schalkwijk, our captain, being seedy and not fit to play. Of course *nobody wants to make a noise just because we beat* Gloucester once in six years at Kingholme. All the same let us have it fairly put and all we ask is, if you mention who are away from one side, in common fairness mention also those away from the other. It is a silly thing to make faces at your gruel, swallow it!

We were lucky, one admits, to win. All the same the score attained was admirably carried out and the defence put up after, was solid and complete. Gloucester didn't score, because they were kept out. It seems to me that it isn't the players who lose badly, but the supporters and local writers. The play is everything to most of us, and to play to win with all one's might. But if you can't win you can always congratulate the winners, and without an ungenerous thought, if you yourself have played the game. But to bleat about winning if Steyn had been there and not losing if Spence hadn't fallen or Cameron hadn't missed the ball or Graham-Davies missed the posts, or some such fable, is silly. Let all those who honor us by attempting to describe our games know we play the game to win the game, and if we cannot win we can jolly well lose and good luck to the sides that beat us.

Guy's Team.—P. D. B. Spence, J. Finnemore, G. Fellowes-Smith, H. Graham-Davies, G. R. Mostert, W. Hops, V. R. Preen, J. Durr, G. G. Cameron, B. G. Scholefield, N. M. Holloway, J. W. Schabort, E. W. Hutchinson, G. G. T. Tregarthen, G. King-Turner.

Guy's v. Bristol.

ON Saturday, October 18th, the Hospital team went down to Bristol and there they had to take their gruel in the shape of a beating from the home XV. We may as well say at once that Bristol were the better side and deserved their win. The margin was pretty heavy, 22 points to 11. Bristol gained 2 goals, 1 penalty goal and 3 tries, and Guy's got 1 goal and 2 penalty goals. Therefore our opponents crossed our line five times to the once that we got across theirs. As a matter of interest P. D. B. Spence was not playing, and this is mentioned as a fact and not as an excuse. Spence, by the way, was busy at Queen's Club winning the Covered Courts Championships and on Monday last he won the Men's Doubles Championship in partnership with C. H. Kingsley.

It was a very fast and open game at Bristol, the ball was given plenty of air and both backs, soon after the commencement, had opportunities of showing their pace. After play had been in progress about a quarter of an hour R. C. Pickles kicked a very fine penalty goal from a long way out. The forwards of both sides did remarkably well and little fault could be found with our own men

in the rushes. Hutchinson had a shot at goal and Preen made a fine run through, but his transfer was not accepted and an opportunity of drawing level was lost. After this L. J. Corbett, the England centre, cut out an opening for Quick, who cross-kicked for Stinchcombe to gain a try and Pickles to convert. Then came our first penalty, and though every effort was made to get level ends were changed with Bristol 8 points, Guy's 3.

Just after the resumption our defence had a temporary, but very expensive lapse. Corbett, Quick and Carter gaining tries, one of which Pickles added to. Guy's replied with a penalty goal kicked by Van Schalkwijk and Scholefield gained a try which was converted, and thus our 11 points were made up. The last ten minutes or so may be fitly described as fast and furious, sad to relate though we could not score again, and it was left to Corbett to put on yet another try for the home side. There we must leave it, though beaten we were not disgraced. Bristol are a good side and it will take a very hot lot to beat them on their own turf.

Guy's Team.—R. Trick, G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. R. Mostert, V. Preen, W. Hops, J. Durr, B. G. Scholefield, G. G. Cameron, N. M. Holloway, J. W. Schabort, W. H. Myburgh, E. W. Hutchinson, De Wet Vorster.

United Hospitals Sailing Club.

THE Annual General Meeting of the Club is to be held on the 29th of this month, at Brice Restaurant, 17, Old Compton Street, at 7 o'clock, followed by a Dinner at 8 o'clock.

Agenda—

1. Finances of the Club.
2. Competitions for next season: (a) Racing, (b) Cruising.
3. Addition to Rule 3.—"Ladies are not eligible for membership."
4. Election of Officers. Retirement of the Rear-Commodore and Hon. Treasurer.
5. Position of Dinghey Scheme.

The Commodore, Mr. Claud Worth, will be in the Chair.

While at Burnham recently we inspected the two 14 ft. sailing dinghies which are being made to our own design by Wm. King & Son. They are both practically finished now and are beautiful pieces of work. Built primarily for strength and durability they provide some accommodation, to the extent of stern lockers and for'ard decking, for the stowage of week-end camping kit, and at the same time have quite good lines for sailing and should be very smart little craft in the water. Carrying a single lug sail they are as fool-proof as a sailing boat can be and they should provide great sport on the East Coast next summer. The Vice-Commodore, Mr. James Sherron, F.R.C.S., C.B.E., of London Hospital, has given a great impetus to the sport by presenting a Cup for Inter-Hospital Competition. So Regattas are to be an annual event at Fambridge, the Hospital crews racing by heats in the two dinghies with the *Albatross* probably acting as flagship.

All members and intending members are urged to be present at the Meeting and Dinner on the 29th.

United Hospitals Hare & Hounds.

THE Club Headquarters have been changed to the "Railway" Hotel, West Wickham, through kind permission of the Blackheath Harriers. This step has been taken as arrangements were not satisfactory at the "Crown" Hotel, Chislehurst.

All future runs from here, on Wednesdays, at 3.30 p.m., starting Wednesday, October 15th.

The first Club Handicap is on Wednesday, October 22nd.

Trains—

London Bridge—Dep. 2.23 p.m.
West Wickham—Arr. 3.2 p.m.
N.B.—This is the only suitable train.
West Wickham—Dep. 5.6 p.m.
London Bridge—Arr. 5.51 p.m.

Fare.—1s. 6d. return.

The Hotel is 1 min. walk from the station.

Hospital Information, etc.

Pass List.

Conjoint Board.

October, 1924.

First Examination.

Chemistry, Physics and Elementary Biology.

*†J. B. Prentis. ‡G. N. S. Weller.
*E. C. Shaw.

*Chemistry. †Physics. ‡Biology.

Second Examination.

Part I.

Anatomy and Physiology.

R. V. Bradlaw. *L. E. Lane.
A. E. Treweek. *N. H. C. Allen.
*G. M. Housden. *F. S. Warner.
*D. K. Weston. †R. D. Broadway.
*G. H. Greenway. †J. A. Vernon.
J. C. Q. Brown. †H. D. Kendrick.
C. E. Gallagher. †J. M. Durr.
J. P. M. Fraulo. †R. G. de Kock.
W. R. Kirkpatrick. †G. N. Lewin.

*Anatomy only. †Physiology only.

Part II.

Pharmacology and Materia Medica.

R. D. Broadway. T. G. Scott.
S. T. Williamson. J. N. Martin.
B. Horwitz. A. V. Clemmey.
A. G. Ensor.

L.D.S.

October, 1924.

Preliminary Science.

Chemistry and Physics.

*H. Cohen.
T. D. T. Brocklehurst.
E. W. Hutchinson.
*E. C. Humphreys.
†V. G. Boyle.

*Chemistry. †Physics.

First Professional Examination.

Part I.

Mechanical Dentistry.

N. B. Coltart.
W. A. Corry.
J. W. S. Coe.
A. H. Curtis.
R. Cutler.
J. H. F. Hilton.
K. T. Hops.
W. Hops.
G. N. R. Jones.
H. H. Kenshole.
G. H. Leatherman.
A. S. Moore.
S. K. Arnold.
M. Berman.
M. Bewlay.
H. Brown.
D. C. Buckley.
F. H. Channon.
S. I. Cohen.
W. F. Fuller.
K. S. Keele.
L. J. Martin.
H. M. Norman.
C. Rumball.
J. J. Sanders.
C. W. Siddle.
C. Skinner.
J. Stazunsky.
R. W. Waldie.
F. F. Wilkinson.

Part II.

Dental Metallurgy.

J. W. S. Coe.
A. H. Curtis.
R. Cutler.
J. H. F. Hilton.
K. T. Hops.
W. Hops.
G. N. R. Jones.
H. H. Kenshole.
G. H. Leatherman.
S. D. Marcus.
A. S. Moore.
L. G. W. Papenfur.
M. G. Berry.
P. W. Binstead.
I. E. Brown.
D. J. Bull.
S. G. Caston.
R. L. Cautley.
H. E. S. Collingwood.
A. H. Crowley.
R. L. Duchesne.
A. W. Francis.
H. A. Ginn.
W. M. Graves-Morris.
G. M. Greenwood.
J. N. Hamman.
A. H. Herbert.
F. S. Hobbs.
W. Holgate.
J. W. H. Jones.
R. F. Keet.
R. F. Prichard.
L. R. Rowlands.
C. J. C. Siggers.
G. G. Thwaits.
R. T. Towne.
P. S. Turner.
H. C. J. Van den Brocque.
G. N. S. Weller.
J. E. Willett.
C. H. Banks.

Part III. (a)

Anatomy and Physiology.

M. Gerson.
G. E. Graham.
G. J. Hollis.
G. H. Leatherman.
G. W. Oliphant.
T. J. Barnes.
J. A. Bicker.
H. G. Brooks.
D. M. Calder.
T. M. Calhaem.
R. L. Dale.
W. N. Farrar.
G. Fellows-Smith.
D. Gure.
C. S. Long.
W. H. Naylor.
T. T. Oliver.
I. S. Rutter.
E. N. Screech.
W. H. Sprigley.
C. Skinner.
N. Van Z. Smit.
L. R. Davey.
S. Droomer.
T. G. C. Emerson.
R. G. Swiss.
A. G. Taylor.
J. White.

Part III. (b).

Dental Anatomy and Physiology.

M. Gerson.
G. E. Graham.
G. J. Hollis.
G. H. Leatherman.
G. W. Oliphant.
H. F. Boosey.
L. J. Brown.
G. L. N. Burden.
J. D. Cambrook.
J. Chamberlain.
P. S. Clarence.
H. J. Daneel.
A. A. Danino.
C. H. Edney.
G. Evans.
C. R. E. Freezer.
R. D. G. Gain.
P. Gerrard.
R. H. Hancock.
E. R. Irish.
G. J. T. Jose.
J. W. Kingston.
R. C. Lilycrap.
R. M. Phillips.
D. M. Timpson.
E. C. Woodhead.

Papers by Guy's Men.

Peter McEvedy, F.R.C.S. The Treatment of Empyema.—*Journ. of Clinical Research*, October, 1924.

F. A. Knott, M.D. A Note on Focal Infection.—*Ibid.*

A. H. Harkness, M.R.C.S., L.R.C.P. Urethritis in the Male. (3) Metastatic Infections of Gonorrhœa.—*Clinical Journal*, liii., 1924, p. 426.

A. H. Tubby, C.B., C.M.G. The Advance of Orthopædic Surgery.—*Ibid.*, p. 481.

J. F. H. Stallman, F.R.C.S. and Another. On Influenzal Arthritis, with Notes of three cases of Infection of the Knee-Joint in Children.—*Lancet*, 1924, ii., p. 743.

Sir Kenneth Goadby, K.B.E., M.R.C.S., D.P.H. A Case of Iron-Stone Phthisis.—*Ibid.*, p. 752.

G. B. Dowling, M.D. Persistent Erythema Multiforme.—Proc. Roy. Soc. Med., 1924, xvii., Sec. of Dermat., p. 90.

Change of Address.

Mr. Alfred Allport, 55, St. James's Street, S.W.1. 'Phone: Regent 3847.

K. H. Hole, Surg. Commander, R.N., H.M.S. *Frobisher*, c/o G.P.O. London.

D. H. Hubbs, 7, Huddersfield Road, Barnsley, Yorks.

H. N. Collier, 9, King Street, St. James's, London, S.W.1. 'Phone: Regent 1623.

Llewelyn Evans, L.D.S., 18a, Thurloe Place, South Kensington, S.W.7.

Alan H. Todd, 20, Upper Wimpole Street, W. 'Phone: Speedwell 3382.

Cecil G. Siggs, The Yews, 77, Beulah Hill, Norwood, S.E. 19.

Appointment.

K. H. Hole, M.B., B.S., Squadron Medical Officer, H.M.S. *Frobisher*.

Guy's Hospital Bicentenary Appeal.

Notice to Old Guy's Men.

THIS week all old Guy's men have been sent a letter signed by our Senior Physician, Senior Surgeon, and Senior Dental Surgeon, a Collecting Book and Subscription Sheet. This list of old Guy's men comprises nearly 5,000 names. In view of so many letters, errors may occur, and the Secretary to the Treasurer particularly requests that if any Guy's man in practice has not received this letter and Collecting Book before the end of this month that he will communicate at once.

The Treasurer very sincerely hopes that every Guy's man will earnestly endeavour to give the utmost help possible.

In 1896 over £26,000 was collected in this way. Surely we may hope to collect considerably more than this for our Bicentenary Appeal.

The Disguysed Minstrels.

THE "Disguysed Minstrels" developed in the Autumn of 1896, out of the ordinary Residents' Nigger Troupe, which, as at the present time, went round the Wards on Christmas Day, and also gave entertainments throughout the Christmas Week.

The founders of the Troupe, so to speak, were Dr. H. V. Spon and Dr. W. E. Robinson, and they were very quickly associated with A. A. Miller, W. R. Cazenove, J. M. Fortescue-Brickdale, and Stanley Cock, the last four being, with Dr. B. B. Ham, the original founders and editorial staff of the *Guyoscope*.

They gave an entertainment which would now be considered quite ante-diluvian, being on the lines of the old-fashioned Christy Minstrel entertainment given by Messrs. Moore and Burgess, at the old St. James's Hall, all the performers being in nigger costume, with blackened faces, and the troupe being arranged in a semi-circle, with "corner men" to give the necessary question and answer developments of the usual nigger conundrums.

From among students of the Hospital and some friends outside an orchestra was collected, and a boys' choir was borrowed from Southwark Cathedral. The original conductor was Mr. (now Sir) R. R. Terry, later organist at the Roman Catholic Cathedral at Westminster, and one of the greatest authorities in England on old English Church Music.

At Christmas time in 1896, 1897, and 1898, the Disguysed Minstrels gave entertainments in various suburban halls round London, the local arrangements in each case being made by the old Guy's men in the locality, who got out the local advertisements, and arranged for the sale of tickets.

One or two very notable performances were given, one at St. George's Hall, Langham Place, where the Duke of Cambridge was present, and the other in the Theatre at the Crystal Palace, where the takings for the single performance were no less than £250.

The business side of the entertainment was run at the Hospital by Mr. J. A. Reaside, who was then employed in the Guy's Hospital GAZETTE Office, and a very careful account was kept of all income and expenditure.

The net profit of the three years' series of entertainments, after deducting the expenses, was about £1,500, but the good that was done to the great Appeal by these performances far outweighed the actual cash benefit. The name and needs of Guy's Hospital were brought home very characteristically to many hundreds of people, whose attention would not otherwise have been drawn to the Appeal, and the general feeling in the public mind was that a Hospital whose Students were so enthusiastic for its welfare was certainly worthy of support.

With the money collected the Disguysed Minstrels' Cot in Astley Cooper Ward was endowed, and several beds in the Hospital were supported for a series of years.

We are now glad to say that the Disguysed Minstrels have been re-formed. Rehearsals have now begun, and it is hoped that performances will start in December. Further particulars will be published in the next number of the GAZETTE; in the meantime the Secretary to the Treasurer will be grateful to receive any suggestions with reference to where arrangements could be made for a performance to be given.

The Motor Show at Olympia.

THE Motor Exhibition this year is an exceptionally good one, and we are therefore giving below, for the benefit of our readers unable to attend personally, descriptions of some of the many cars we noticed suitable to the requirements of medical men.

STANDARD MOTOR Co. (Stand No. 211).—One of the oldest British makes, these cars are noted for body-work which gives both roominess and comfort at moderate cost. 11 h.p. two and four-seater, £235. 11 h.p. "Weymann" Saloon, £375; and 14 h.p. Saloon, £475, are excellent value.

FIAT MOTORS, Ltd. (Stand No. 129.)—Standard two-seater, can accommodate 4 or 5 persons, wind screen, hood, etc., £350. Standard 10/15 h.p. four-seater with hood and curtains, wings, wind-screen, etc., £340. The Saloon at £395 is one of the best value cars in the Show.

"BEAN" CARS (Stand No. 89).—12 and 14 h.p. They are solidly built and will give continuous service over periods of prolonged hard work. 12h.p. two-seater Touring, £335. 12h.p. four-seater Touring, £345. 12 h.p. two-seater Coupe, £395. 14 h.p. Touring, £395. 14 h.p. Saloon, £525.

CITROEN CARS, Ltd. (Stand No. 23).—Always reliable and reasonably priced. 7·5 h.p. with two-seater body, £145. 11·4 h.p. English body four-seater, £250, and four-seater Saloon, £295. Complete with baloon tyres, speedometer, clock, Boyce motometer, driving mirror and automatic wind-screen wiper.

ROVER CARS (Stand No. 173).—9/20 h.p. 4-cylinder overhead valve engine, long wheelbase chassis, with three-door four-seater body, £185, £205, £215. The 8 h.p. two- or four-seater at £160 is both popular and efficient.

SWIFT ALL-BRITISH CARS (Stand No. 127).—2/3-seater, £235; full four-seater, £235; three-quarter coupe cabriolet, £275, are bargains, all 10 h.p. While 12 h.p., £375 to £550, and the 4/5-seater, £595, are still more excellent.

The MORRIS-COWLEY two-seater complete can now be obtained for £175 and a two-door four-seater for £195. This is one of the most popular light cars, nor is it to be wondered at when one reviews the standard of equipment included.

The MORRIS-OXFORD 14/28 h.p. four-seater with front wheel brakes, is offered at £285, and the Saloon with augmented equipment and improved coach work, including front wheel breaks, at £385.

The HUMBER 12/25 h.p. is shown on Stand No. 128 as a touring car to seat four, fitted with rear screen, at £440. A Saloon to seat four and with three doors costs £555.

SUNBEAM MOTOR CAR COMPANY are showing on Stand No. 98, 14/40 h.p. as a Touring and Saloon car, the two models cost respectively £685 and £845. The finish is superior and well worth inspection.

There are, of course, many other good cars and varieties too numerous to mention in this issue.

Students' Club Library—Catalogue of Books.

(*Continued*).

LEAF, Walter. The Iliad of Homer. 1891.
LECKY, William Edward Harespole. The Rise and Influence of Rationalism in Europe. Lond. 1890. 2 Vols.
LEE, Elizabeth. Essays by Sainte-Beauve. Translated with Introduction. N.D.
LEE, Samuel. The Works of Horace rendered into Prose. 1890.
LEFTWICH, R. W. Shakespeare's Handwriting and other Papers. 1922.
LESSING, G. E. The Dramatic Works of. 1878.
——. Selected Prose. Translated from German by E. C. Beasley and Kelen Zimmern. Edited by Edward Bell. 1889.
LETOURNEAU, Ch. Property: Its Origin and Development. 1892.
LEVER, Charles. Jack Hinton. N.D.
——. Charles O'Malley. N.D.
——. Tom Burke of "Ours." N.D.
——. Harry Lorrequer, The Confessions of. N.D.
LEWIS, G. Tales of Terror and Wonder. A.D. 1800—A.D. 1824. 1889.
LIE, Jonas. The Commodore's Daughter. Translated from Norwegian. 1892.
LILLY, Wm. Samuel. Characteristics from the Writings of John Henry Newman. 1890.

LIVINGSTONE, David. A Popular Account of Missionary Travels and Researches in South Africa. 1875.
——. A Popular Account of Dr. Livingstone's Expedition to the Zambesi and its Tributaries and the Discovery of Lakes Shirwa and Nyassa, 1858—1864. 1887.
—LODGE, Oliver J. Modern Views of Electricity. 1889.
LOMBROSO, Cesare. The Man of Genius. 1891.
LONG, George. Bibliotheca Classica. 1879.
——. The Thoughts of the Emperor M. Aurelius Antonius. 1889.
——. The Discourses of Epictetus with the Eucheiridion and Fragments. 1890.
LONGFELLOW'S Poetical Works. 1889.
LOWELL, James Russell, The Poetical Works of. 1889.
LUBBOCK, Sir John. Ants, Bees, and Wasps. 1890.
——. The Senses, Instincts, and Intelligence of Animals. 1888.
LULHAM, P. Habberton. Devices and Desires. 1905.
LYELL, Sir Charles. The Students Elements of Geology. 1885.
LYNDHURST, Lord, A Life of, by Sir Theodore Martin. 1883.
LYTTLETON, Hon. R. H. Cricket: with contributions by A. Long, W. G. Grace, R. A. H. Mitchell and F. Gale. 1889.
LYTTON, Rt. Hon. Lord. Kenelm Chillingly. N.D.
——. The Last of the Barons. N.D.
——. Rienzi: The Last of the Roman Tribunes. N.D.
——. The Caxtons. N.D.
——. The Last Days of Pompeii. N.D.
——. Eugene Aram. N.D.
MACAULAY, Lord. The History of England from the accession of James the Second. 4 Vols. 1885.
——. The History of Herodotus. 1890.
McCARTHY, Justin. The Ladies' Gallery. 1892.
——. England under Gladstone, 1880—1885.
——. Sir Robert Peel. 1891.
——. A History of the Four Georges. 4 Vols. 1884.
——. A History of our own Times. 1889.
MACLEANE, Rev. A. J. Bibliotheca Classica. 1879.
McCLINTOCK, Sir F. Leopold. The Voyage of the "Fox" in Arctic Seas in search of Franklin and his Companions. 1881.
McFERRAN, James. Yachting. 1884.
McKAY, Charles. A Thousand and one Gems of English Poetry. 1890.
MacMillan's Magazine. Vol. XIX., 1869—Vol. LXII., 1890.
MAHAFFY, J. P. Social Life in Greece: Homer to Menander. 1890.
MALET, Lucas. Colonel Enderby's Wife. 3 Vols. 1885.
MALLOCK, W. H. The New Republic or Culture, Faith and Philosophy in an English Country House. 1889.
MALTHUS, Rev. T. R. An Essay on the Principle of Population. 1890.
MANN, Mary E. A Winter's Tale. 2 Vols. 1891.
MANTEGAZZA, Paolo. Physiognomy and Expression. N.D.
MAREY, E. J. Animal Mechanism. 1883.
MARSHAM, John Clark. Abridgment of the History of India. 1880.
MARTIN, Theodore. The Life of His Royal Highness, The Prince Consort. 1879.
——. The Life of Lord Lyndhurst. 1883.
MAUDSLEY, Henry. Natural Causes and Supernatural Seemings. 1886.
——. Responsibility in Mental Disease. 1892.
MAUPASSANT, Guy de. Pierre and Jean. Translation from French by Clara Bell. 1890.
MAURICE, Frederick Denison. Moral and Metaphysical Philosophy. 1890.
——. Social Mortality. 1886.
——. Theological Essays. 1871.
MAURICE, F. D. F. The Life of Frederick Denison Maurice. 2 Vols. 1885.
MAY, T. E. The Constitutional History of England, 1760—1860. 1863.
MEHALAH. A Story of the Salt Marshes. 1891.
MEIKLEJOHN, J. M. D. Critique of Pure Reason. 1890.
MELVILLE, G. J. Whyte. The Gladiators. 1890.
——. Digby Grand. 1890.
MEREDITH, George. The Egoist. 1890.
——. The Adventures of Harry Richmond. 1892.
——. Diana of the Crossways. 1890.
——. The Ordeal of Richard Feveral. 1890.
——. Rhoda Fleming. 1890.
MERIVALE, Charles. History of the Romans under the Empire. 8 Vols. 1890.
MIDDLETON, T. B. Yachting. 1894.
MILL, J. S. A System of Logic Ratiocinative and Inductive.
——. Principles of Political Economy. 1888.

(To be continued.)

Publications Received.

The London Hospital Gazette, The Long Island Medical Journal, The Nursing Times, The Dragon, The Hospital Gazette, The Medical Review, The British Medical Journal, Archivio di Farmacologia Sperimentale, The Indian Medical Gazette, The Burma Medical Times, The Isis.

Income Tax and Super Tax

Our examination of your case may save you money—it has done so for others—and it is made free of charge.

Whether you question your liability or not—let us revise it for you as a precautionary measure.

Enquiries upon any matter of taxation and accounts are invited and are personally supervised by a practising accountant.

Full particulars of our service on application to:

B. RAWDONS, Ltd., Taxation Specialists, 6, Southwark Street, London Bridge, S. E. 1. Telephone Hop 6793.

ED.—L. G. H.

"TROJAN."

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *November 8th, 1924.* *Number 948*

PASSIM

SINCE we last wrote "Passim," the Genera Election has disorganised the entire Country, and it is with a very thankful heart that we record its successful termination. We feel that, having no more meetings to wreck, Constituents will now become normal once more, the lion will lie down with the lamb and we shall be left in peace. "But," you will say, "the Election cannot possibly have affected you, who sit aloof from the trivialities of Government, writing your masterly articles." How little you know if you say that, for the effects of a General Election reach far, even to the ends of the earth, so that the American exchange rises even while the general moral tone of the vote-canvassers sinks. The Public are assured that the recent election has made history; we only know that it has increased hysteria, and to the general unrest that it has brought in its train, we attribute the harsh and biting message that we have received.

It was a verbal message and was delivered, we regret to say with gusto, by a go-between so immaculately attired that we cannot believe his veracity was any less spotless. It was said to emanate from a member of the Staff and reached us as follows :— "Tell the Editor from me that his 'Passims' are altogether bad. 'Passim' is the one place in the whole GAZETTE where I expect to find the current news of the Hospital and not cheap attempts at very mediocre literature." There was much more to the same effect, but it is all epitomised in those two sentences, which, except for the word "mediocre," is almost word for word as we received it.

The reprimand came as a great shock. For months we have striven to keep our readers informed of the slightest change in the Hospital administration, while we brought to life for them the very spirit underlying those changes. Is there a Guy's man to-day who does not know that the lift in Hunt's House is now sacred to Passengers and Patients, or who does not rejoice in the fact that the newspaper parcels are no longer seen on the Extern's window ledge? Yet, though we may have failed in spite of long nights of patient endeavour, it is perhaps not yet too late to make amends. We have few guiding principles in life, but of these the foremost is to mount higher and ever higher by means of ingratiating ourselves with the Staff. From the very first we have striven to emulate those single-minded men who—

"Like the crawling ivy round a tree,
That licks the bark to gain the trunk's support,
Climb high by creeping ruse instead of force,"

and so hasten, at the very first opportunity, to give the latest and most up-to-date information that in any way concerns the Hospital.

The General Election.—This is everywhere spoken of as the greatest of successes, having been the means of stabilising the Government to such a degree that it is now confidently expected to remain quite inactive for at least five years. This is very encouraging, but we should have liked more notice to have been taken of the fact that there are now four old Guy's men in Parliament, namely, Dr. E. G. Graham Little (Independent Conservative, London University), Sir R. H. Luce, K.C.M.G. (Conservative, Derby), Lieut.-Col. F. E. Fremantle, O.B.E. (Conservative, St. Albans), and Dr. A. Salter (Labour, Southwark).

The Bicentenary Appeal.—This is now in full swing, and the Secretary to the Treasurer with his large staff of assistants is busily counting money day in and day out. Every old Guy's man, unless he has been overlooked, has received cards or books with which to lure money from everyone in his district, and we are told that the "Guyoptimists" are almost ready to make the welkin ring in any place where the welkin is still within ringing distance. A full page is given in each GAZETTE to the very latest "stop-press' Appeal news, to which you should instantly refer.

The Examinations.—These have been dragging out their monotonous course for many weeks past and are now very nearly ended. Our numerous successes have been very gratifying, while our failures have been the cause of much despondence. We have spoken to many of the successful candidates and they have all testified to feeling extremely gratified. The opinions of the less fortunate candidates have not been invited.

Guy Fawkes' Day.—The festival of this stout old Brigand was celebrated this year on the fifth of November, and Guy's, as usual, took a prominent part in the proceedings. From early morn, or actually from two days previously, Maze Pond and St. Thomas's Street were thronged with groups of urchins, repeatedly asking passers-by not to forget the Guy, Mister, a lapse of memory, which they rendered quite impossible. Later in the evening the streets were rendered merry and a trifle unsafe by the usual exhibition of fireworks, in which "giant whizzers" and "cannon crackers" took a prominent part.

The Quadrangle.—This looks much the same as ever during the night, but by day resembles the very best part of the Motor Show at Olympia. Cars of greater size and magnificence are constantly appearing and must often lead the statue of Thomas Guy to imagine that he has been translated to Waterloo Place or St. James's Square.

The Medical Exhibition.—This enterprising and instructive exhibition was well patronised by the newly-qualified men. The tea and music in the reception hall were said to be all that could be desired, and several of the House Officers are now living almost exclusively on "Sister Laura's Patent Invalid Milk." There will be no ready sale in the College for "Kolynos" and other dental creams for several months to come.

The Bicentenary GAZETTE—This masterly publication will appear on January 6th, and will remain for all time a work of reference for everything relating to the past and present history of the Hospital. There will be no "Passim."

Intemperance.—This has been steadily on the decline for many years, in fact ever since the Hop Exchange was destroyed by fire. Diploplia is now excessively rare in the College, in which the Court Missionary has not set foot for many a long day.

The Hospital Cots.—The more popular occupants of these cots still take an unconscionable time to recover from their multifarious complaints, and, as Christmas approaches, become well-nigh incurable. This does not prevent them from taking mild exercise in the wards, when the visiting Physicians and Surgeons are not likely to come in.

The Football Team.—This still plays first-class football in third-class weather, and notices in the newspaper accounts that most of the teams it defeats are seriously under strength. Its record for defeating weakened teams will stand for many years, if the present run is continued.

The Warden.—Guy Fawkes' Day was taken as a suitable occasion to speed the Warden on his way to America. A dinner of carefully selected gunpowder-plotters was held, and later on the Externs' Room was made uninhabitable by an expensive assortment of fireworks. During the night we understand that a new Club was formed, under the name of "The Slinkers," a "Slinker" being anyone who is uncivil enough to want to go to bed before breakfast. Unfortunately before cock-crow all had joined the "Slinkers" to the intense disgust of the founder of the Club, whose pet abomination it is.

Guy's Hospital Bicentenary Appeal.

Old Guy's Men.

BY the end of last week over 3,000 communications had been sent to old Guy's men. Each letter contained a stamped post card requesting the recipient to be kind enough to return this card stating if they are willing to try and collect for the Bicentenary Appeal. Replies are still being received, and it is, perhaps, a little early to form an opinion upon the result. Up to the present nearly 600 replies have been received, of which a little more than half have expressed their willingness to help. Of those who are unable to help us we have received some very nice letters, wishing the Appeal every success and explaining their sincere regret they cannot collect themselves owing generally to local conditions. It is fully appreciated that where local hospitals are appealing, a Guy's doctor must support that hospital, and we cannot in justice look to him to collect for us.

It is gratifying to know, however, that in most of these cases the Guy's man still remembers his hospital and has generously sent us a contribution from his own pocket.

It is earnestly requested that any who may see this notice and who have not yet replied will send their reply as soon as possible. It makes the task of collection very much simpler and it is possible for the Appeal Committee to form an idea how the Appeal is progressing. It is to be remembered that the sum of £26,000 collected in this way in 1896 must be beaten. This will necessitate the utmost activity during the next two months to raise every penny possible. In this connection attention is again drawn to the excellence of the Disguysed Minstrels. Rehearsals are proceeding splendidly and the show is well worthy to rival a professional one. It is too early to state definitely when the first performance will be, but arrangements are now being made for engagements in late December and January. The cast includes ten altogether, and it is requested that anyone, who is in a position to arrange for a performance to be given, will communicate with the Secretary to the Treasurer at once.

The Mayfair Dramatic Club.

THE Mayfair Dramatic Club have very kindly decided to give three performances in aid of Guy's Hospital Bicentenary Appeal. The Club is now in its Sixth Season and it is presenting "The Maid of the Mill," an 18th Century Comic Opera. The Mayfair Dramatic Club is the only Amateur Club which presents 18th Century Opera. The producer, Mr. Stephen Thomas, was intimately associated with "The Beggars' Opera," "Polly," and all of Mr. Nigel Playfair's productions.

"The Maid of the Mill" was one of the first operas since the time of Purcell in which concerted music was employed to carry on the business of the stage. The story is founded on Richardson's famous novel "Pamela." The libretto is very amusing in true Bickerstaffe style, while the music is culled from the gems of the period.

The Press comments on previous performances of the Club are well worth reading, and they are given, together with full particulars of the Club and its present performance, in published handbills which may be had on application to the Secretary to the Treasurer, Guy's Hospital; or from Miss Morel, 13, Clarendon Buildings, W.1; or from Miss Keen, 63, Lancaster Road, N.W.3.

Lord and Lady Wavertree are the Presidents of the Club, and it has an excellent cast, with full chorus and orchestra.

The performances are on Monday, November 24th, Tuesday, November 25th, and Wednesday, November 26th next, at 8 p.m., at the Scala Theatre, Charlotte Street, W.1.

Prices of admission vary from 1s. 2d. to 12s. including tax. Boxes by arrangement.

All seats are numbered and reserved, and tickets may be obtained from any member of the Club, from the Secretary to the Treasurer, the Counting House, Guy's Hospital, from the Scala Theatre Box Office, from the usual Theatre Ticket Agents, or from the Secretaries of the Club, Miss Morel and Miss Keen.

Tickets are already selling well and all of those desiring tickets should make early application.

Guy's Hospital is greatly indebted to this Club for so kindly giving their profits to our Bicentenary Appeal and it is earnestly hoped that as many as possible will take seats.

A Retrospect.

1869—1924.

The Rooms and their Inmates in the Sixties and Seventies.

HOW short time is when we look back! How long it is when we look forward! The passing of my fellow-year's man, W. H. A. Jacobson, has stirred up the past 55 years in my memory to such an extent that occasionally, for a time, the present vanishes, and I am living again in those far-off days in which Jacobson held his students appointments side by side with me, and we watched, as it were, in a panorama, the progress that the surgical world was then making, destined ultimately, in the near future, to revolutionise entirely surgical work in a way which no similar period had ever seen. I see those days again now, but tinted and illuminated by subsequent events, and the experience of an increased knowledge of facts.

The "Rooms" where we so often met are gone, and the scenes which, day by day, took place in that centre of hospital life, and in which we both took a prominent part, exist only in the memory of a few. What exquisite treats we used to have from some of the talented residents.

There was Bell the violinist, and Gunner Nash with his sweet tenor voice, and Smith of Brighton, who always took the piano. Any piece, though previously quite unseen, was welcome always to the talented instrumentalist, even though the new part was in a different key, he would put it up or down to suit the violin part. Poor Smith, how talented and lovable a man! and yet to what a sad end he came.

It was not often that Jacobson entered into the lighter side of the social amusements of the Rooms. He generally found some duty in the wards to call him away; but still he was of the audience for some years of these musical luxuries.

Gunner Nash still lives and is as "jolly" and as bright as ever, though more than half a century separates "now" from "then." Still his voice is the charm of his friends both in conversation and in song.

The mind naturally wonders why some are so gifted, almost from birth, with a sunny, happy disposition like his, a source of happiness to themselves, and a ray of sunshine to all who come within their circle of friendship; while others are almost as sour as vinegar, their only pleasure being their faculty to make everybody else miserable; their acquaintances being others like themselves, repelling at sight even the appearance and advance of friendship; at length their miserable existence terminates without a tear for their departure, or a sigh to betoken the loss that others may feel for their death.

The Wards and their Ways.

The wards, too, what changes have been made from time to time, not only in their appearance, but in the way the work was done in them. Sisters and nurses were selected from friends of the matron, etc., but were, in no sense of the word, "trained." Nurses and scrubbers were one and the same. When a dresser in a ward wanted a nurse to help him in his work, or bring him lint and dressings, he called the old dame who was washing the floor or cleaning the furniture, and she, roughly wiping her hands on her dirty apron, came and did his behests. There was much difference amongst the sisters. Some were ladies of education and excellent in their management of the ward and the comfort of the patients.

The Nursing Scandal.

Then came the great "Nursing Scandal at Guy's," which occurred shortly after I had left the Hospital. It was occasioned by the new blood not mixing well with the old. The old matron had resigned, and a new one had been appointed. She, I was told, carried her head very high, for she had been "fully trained," and therefore totally ignored the authority of the medical and surgical staff.

Turner, the Treasurer, had resigned also, and there was a new Treasurer of a different stamp occupying his place of authority. These two new comers, the Treasurer and the Matron, joined hands, and, without any consultation with the staff, dismissed the old nursing staff and instituted an entirely new lot. Unfortunately the medical and surgical staff were not unanimous among themselves. They all resented the arbitrary action of the two new officials, but some of them, like Howse, said that they could not afford to throw away the work of their lives by resigning their posts as surgeon or physician. Howse wrote me a letter

which took a very practical view of his personal position in the deadlock, in which he said that he looked on the arbitrary action of the Treasurer, formerly always so reliant and friendly with the staff, as the action of a man with an unbalanced mind who knew no better. Others were most indignant at such an insult, and refused to give way in the least, but to stand on their dignity, and not tolerate such profound impertinence from comparatively two inforior officials ; one who was inferior, as acting only in accordance with instructions she received from the staff; the other being inferior as really having no knowledge, either of hospital management or nursing.

The position became so acute that its effect was felt on the "entries" of students for years. For a time it was a question of the entire staff resigning or being dismissed.

But at length the difficulty was met by the resignation of the Senior Physician, Dr. Habershon, and the Senior Surgeon, Cooper Forster. I have no knowledge of the effect this bitter disagreement had on Dr. Habershon, but judging from a letter written to me on the subject by Cooper Forster, his resentment was so deep at such an unprovoked and undeserved insult that it so reduced his strength that he grew gradually weaker and weaker and succumbed ultimately to a severe attack of lichen and its sequelæ.

Peace Restored.

After this serious quarrel had subsided, things began again to run smoothly, as far as outward appearances were concerned, although it was a very long time before its effects on the school, and the individual members of the staff were obliterated. Every effort was made to get back to the amicable working together of all parties, Jacobson and others pouring oil on the troubled waters.

There were many improvements made during the settlement. Indeed, for a long time no one had been more sensible of the need of some radical modification being necessary, and all the members of the staff would have co-operated most cordially with the Treasurer and Matron in mutually adopting a better system of nursing and one more suited to the great revolution that had taken place in medical and surgical advancement.

But it was the autocratic manner in which the Treasurer and Matron took the matter entirely into their own hands, and arbitrarily laid down laws, dismissed officials, and appointed others without at all consulting the staff, completely ignoring them in the matter; and the valuable aid their experience and knowledge would have been in the matter it was this that aroused such deep resentment. It was tactless in the extreme, but the insult was no less keenly felt. However, in the interests of the Hospital, and all others concerned, it was resolved to bury resentment and help to smooth down matters and try to forget the grossness of the insult.

The result of this co-operation of all parties was soon seen. There were no longer buckets seen lying about, filled with dressings and all sorts of filth, that the presence of such is inconceivable at the present day. Nurses were taught their duty and were reserved entirely for nursing duties. Scrubbers were employed for the mechanical cleaning of the wards, and never were called upon in any way to take part in work concerning the patient's wounds.

A Dramatic Incident.

I remember rather a comic incident that once took place in these old days, in connection with the duties of Sister. It was part of her duties, when the physician or surgeon "went round" with his little crowd of students, to accompany them, standing on the outskirts of the group, carrying a highly polished metal inkpot and a pen, in case a prescription had to be written. Sister Dorcas was at that time by far the most dignified Sister we had. Small in stature, but in her manner and bearing, aristocratic in the extreme, she spoke with an accent quite her own. Staccato in the delivery of her words and rolling her r's she gave the impression of desiring to be recognised as one belonging to the better classes. The Surgeon, who had charge of the patients in her ward, though generally one of the blandest and most genial of men, on this particular day, was in rather an irritable mood. His usual handwriting was a flourish with letters about an inch high. He was displeased at something and desired to write his wishes on the bed-paper himself. So Sister stepped forward with her polished inkstand and pen in her most dignified attitude.

I think it was the only time I ever saw a physician or surgeon himself writing on the bedpaper. It was generally done at his dictation by the dresser. The large and polished inkstand shone with a brilliant lustre, but the ink was thick and muddy, and the pen rusty. Writing was an impossibility as the writer strove to make his letters with an increased largeness, and impressive flourish. Once,

twice, and three times, he tried to make a mark and then, his exasperation augmented by the aged pen and ink, he crashed down the pen upon the board and paper, to the utter destruction of the nib and its accessories. He then put his hand into his pocket and cramming a shilling into the bewildered sister's hand and saying, "There, get a bottle of proper ink for me when I come next into your ward," he left little Sister Dorcas speechless.

After he had left the Hospital I went round to see that all things were smooth and straight, and so came into Dorcas again at the time when the Sisters were usually at dinner. "Eh, Sister," I said, "how is it you are not at dinner?" "If the other—r Sister—rs, Mr. Blank—er—r," she replied, "choose to sit on Windsor—r Chair—rs, and dine off—er—r deal tables, I do not." She was dreadfully upset. I had never before heard her parade the grandeur of the furniture to which she had formerly been accustomed, so I asked her, "You are not well, Sister, what is the cause?" "He put it in my hand, the shilling," she said, "he put the shilling in my hand." "Well, what is wrong with that?" I asked. "It was an insult to me to put money in my hand, a thing you never do, except in charity, he should have put it on the table, or the bed-board, but never—r in the hand," she repeated, overcome with the magnitude of the affront offered her. So I left the ward for her to regain her composure, and for myself to seek out an explanation of what a Windsor chair was. I found that it was not such as the Queen uses in her Royal apartments at Windsor, but the ordinary pattern of kitchen chair in common use.

It was a great improvement on the old dirty bucket used for general purposes, to see the bright new tin vessels used exclusively for nursing.

At another stage in this early period it was thought that perhaps contact with the skin, or hand, of another person set up inflammatory changes in a wound. So it became imperative that wounds should not be touched by the bare hands of the dresser. So tin kettles were introduced for washing suppurating wounds by pouring water on to them from the spout. This was the means sometimes of flooding the bed and had to be abandoned.

Sterilisation of the hands was a later introduction. They were washed in the usual way *now and then*, but not efficiently as a routine thing as now. It was a mechanical act only; there was no idea of sterilisation. It was more for the sake of removing "matter-out-of-place" and for general and popular ideas of cleanliness than any scientific reason. I heard an eminent surgeon of the period say at one of the Annual Meetings of the B.M.A., "We wash our hands now *before* an operation, not *after*, as we used to do." This was looked on as a clever aphorism.

(To be continued.)

The Discovery of the Obelisk.

Proceedings of the Southwark League for the Discovery of London.

WE were all a little disconcerted when my friend, George Young, left us unexpectedly while we were in the throes of meditation on Southwark Bridge. It really meant that the League had to entertain itself at tea—a proceeding to which it has a strong objection. Cheeseman was naturally in a bad mood and began to comment a little ungraciously on the omissions of our departed guide. He suggested that Young knew very little about Dickens' Southwark otherwise he would have led us to the Obelisk where little David Copperfield stood just before he was robbed of his box and money. I had hardly time to defend my friend when Brook said, "Where on earth is the Obelisk?" Silencing the jeers of an unfeeling populace, I said, "We will find it." This is how we did it. Meeting at the Cathedral one day we went down Clink Street to Bankend where we admired the Anchor Inn. We kept by the river till we came to the tunnel which leads to Blackfriars Bridge. That was our real starting place.

Blackfriars Bridge.

I led the party to one of the recesses on the bridge and insisted that they should look northwards towards the City of London. Here I

stood in the midst and gave a learned lecture on the name "Blackfriars." My story was as follows:—For centuries before the Reformation the learned Dominican Friars had a monastery on the site of the offices of the *Times*. They were known as the Black Friars on account of their habits. (At this point O'Connor interrupted on the ground that I had no right to comment on the characters of good Catholics. He settled down quietly when I explained that in ecclesiastical language the word "habit" was applied to clothes and not to behaviour.) On the left of the bridge near the site of the offices of the *Daily News* the White Friars or Carmelite brothers had a home until the society was suppressed by Henry VIII. When the two groups of friars went away their buildings passed to the Crown and the property was therefore outside the control of the Common Council of the City. Here then was a suitable place for the settlement of theatrical performers who were persecuted by the civic authority, and forced to play outside the City. In the days of Elizabeth the choirboys of St. Paul's, who were exploited by their master, Farrant, played here in the buildings of the Dominicans. This was called the first "Private" Theatre. Years later Shakespeare and the other "King's Men" played here in the bad winter days when the Globe was unsuitable. In 1605 Michael Drayton organised a company of boy players who performed in the refectory of the White Friars. Like most play-producers Drayton had a thorny path to tread, and this play-house practically closed its doors in 1614.

HUBERT WILLIAMS. Anchor Inn, Bankside. *Daily Chronicle.*

I was about to go into detail when I noticed that my friends were paying no attention and that many elderly ladies returning from their work as office cleaners were standing round, being under the impression that I was making a public speech. I cared little, for I had done

my duty. The term "Blackfriars" which gives its name to the widest bridge in London, and to a long and historic road had been explained. Cheeseman, who professes to know as much about engineering as he knows about finance, now gravely told us that the first bridge was built here in 1770, and the second one was opened in 1869. We now turned our faces towards the south in search of the Obelisk which a policeman said stood at the other end of Blackfriars Road.

It always seems to me that this neighbourhood is a little self-conscious. It seems to flaunt itself before the people of the north bank of the Thames. It is so conscious of being somewhere other than London—or is it Middlesex? This very road called itself Great Surrey Street until 1813. Within a few yards men built the *Surrey* Chapel, the *Surrey* Theatre, *Surrey* Row, and once upon a time even the Rotunda called itself the Surrey Institution.

E. G. SAMES.

The Rotunda, built 1788.

The Rotunda.

It is about the Rotunda that I would speak. Brook says no one reads these notes. He is wrong, for I have seen with my own eyes the district visitors of Deptford searching for and finding the "Angel Inn" at Rotherhithe, and there taking tea on the gallery which overlooks the river. I have watched the merchant princes of Streatham in their search for the "George" in the Borough, and nothing impressed me more than the sight of a party of stolid lawyers from Putney walking one Saturday by the river at Bankside. I am anxious that the whole Diocese should visit the Rotunda, which is No. 3 in this long road. Clayson gave us its history in his own abrupt manner. Here is his story. "Rotunda—yes—Sir Ashton Lever, an eccentric baronet, great collector of birds, animals, shells in 18th century—1774 opened a museum in Leicester Square—called it Holophusika, whatever that means—pranced about the show dressed as a forester, silly idiot—tried to sell exhibits by lottery—hoped to make £36,000 out of as many tickets—only sold 8,000 and the prize was won by James Parkinson—he built Rotunda for the show in 1788—Parkinson sold out in 1806—the building now called Surrey Institution, and learned lectures given—in 1833 became the Globe Theatre—afterwards a concert hall—in 1855 business men took it, and their successors hold it now." I don't know whether the merchant princes of Streatham or the lawyers of Putney will appreciate Clayson's staccato style, but I bid them to visit the Rotunda. The round building, the walls of which looked down on so many forms of entertainment, is still there and so is the gallery. Nails, screws, dynamos and motor tyres fill up all the space, but the old dome covers the building which was set up 150 years ago.

Leaving No. 3 we gaze at No. 11, "Ye old

Blackfriars Shoppe." We thought of all our enemies, for the proprietor claims to exterminate rats, mice, beetles and (so Clayson ejaculated) bachelors.

A few yards further south we came upon Stamford Street which gets its name from Stamford in Lincolnshire, the home of Old John Marshall, of whom more later. If the Girl Guides of Greenwich care to walk down Stamford Street they will find on a shop front a notice—

F. OLD Boot Repairer.

Every time I see it I wonder whether Mr. Old repairs new boots. But this is a dull notice compared with one in the same neighbourhood. There is a barber close at hand who has painted on his window the words—

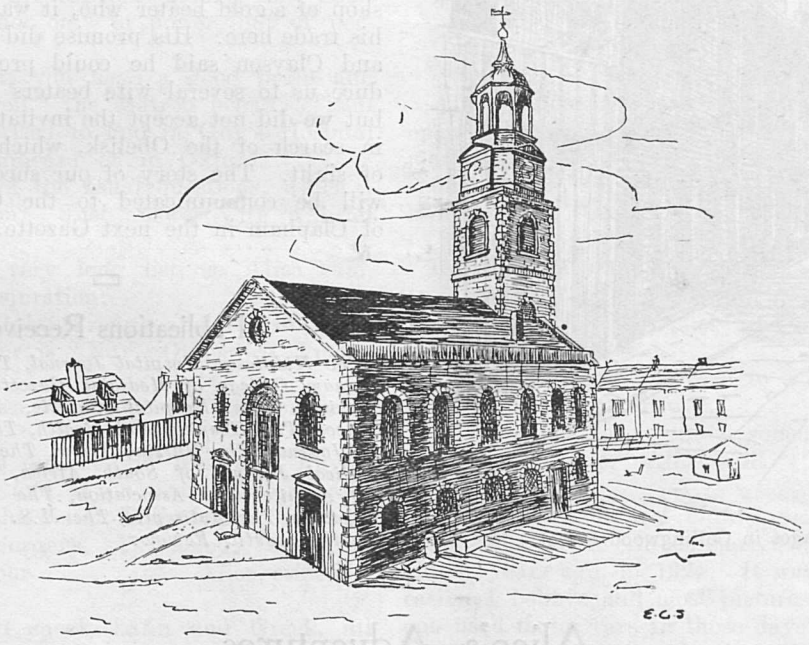
Haircutting and Shaving while you wait.

I suggest to the busy lawyers of Putney that they should not wait. They should leave their heads behind for haircutting and shaving and return for them on their way to Waterloo after office hours.

CHRIST CHURCH.

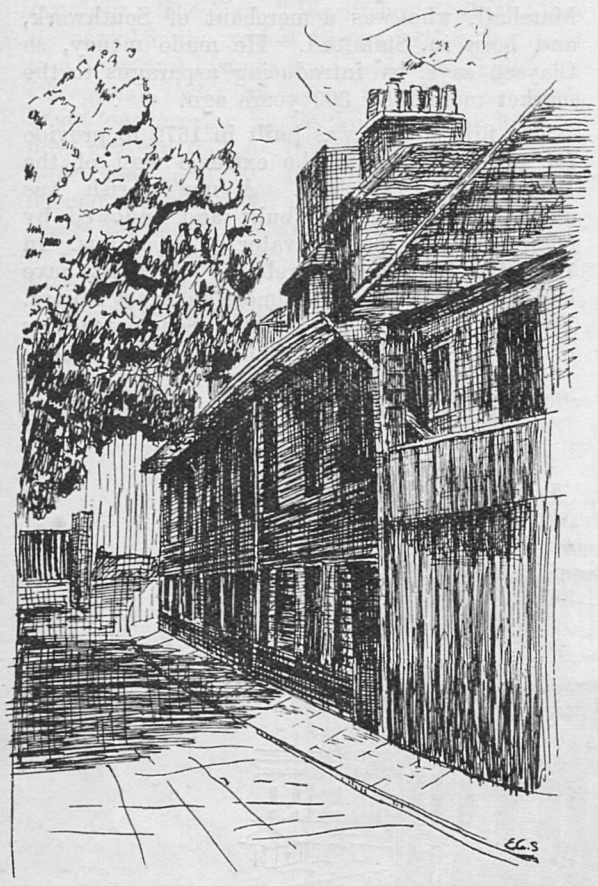
Apologising for this digression I would point out that eventually we came upon Christ Church, which owes its origin to old John Marshall, who was a merchant of Southwark, and born in Stamford. He made money, so Clayson says, by introducing asparagus to the market more than 300 years ago.

The first church was built in 1670 to provide for people living to the extreme west of the Parish of St. Saviour. A new parish was created and a Church built and endowed by money left by the cultivator of asparagus. In 1739 the Church was rebuilt. It must have had a terrible interior—almost an exact square. I would persuade the Sunday School teachers of Balham to enter the Church and to remember that the Chancel was added in 1890, and that in the same year the old flat roof of the nave was removed and a new one made. The arcading which divides the building into nave and aisles was added at the same time. Now it is an imposing Church, thanks to the architect who made alterations in 1890. We walked round the churchyard (now a public garden) and came upon a building called the "Watch and Engine House, 1819." This was doubtless an old police station dating back to the time when old gentlemen, known as "Charlies," were responsible for law and order. Their



E. G. SAMES.

Christ Church, Blackfriars. Prior to 1890.



E. G. SAMES.

Cottages in Collingwood Street.

critics say they were always useless old men who never arrested anyone and therefore made little use of the watch houses of London. On the south side of Christ Church we caught sight of five of the jolliest little wooden cottages in London. No one knows how old they are, probably only 200 years old. They look older. In any case they are worth a visit and the Sidesmen of Sydenham should take note. Brook insisted on calling on the old ladies who occupy the old houses, and we were allowed to make a very careful survey.

We took to the main road once more. Cheeseman boasted that he could take us into the shop of a gold beater who, it was alleged, plies his trade here. His promise did not materialise and Clayson said he could promise to introduce us to several wife beaters who live near, but we did not accept the invitation. We were in search of the Obelisk, which was still out of sight. The story of our successful attempt will be communicated to the Churchwardens of Clapham in the next Gazette.

T. P. S.

Publications Received.

The Middlesex Hospital Journal, The University of Durham College of Medicine Gazette, The Isis, The Charing Cross Hospital Gazette, The Journal of Cancer, The Hospital and Health, The British Medical Journal, The Nursing Times, The Gownsman, The Medical Journal of South Africa, The Journal of the Architectural Association, The Queen's Medical Magazine, The Antiseptic, The M.S. Journal, The Organotherapeutic Review.

Alice's Adventures.

BY I. N. H.

(Being a Further Glimpse into the Future.)

THE gentle swaying motion was very pleasant; Alice felt herself drifting softly downwards through rosy space. She peered below, and saw that the aeroplane in which she sat hovered directly over the ancient Hospital of Thomas Guy—her destination.

A quick graceful spiral accomplished the descent to the aero station over its roof, and alighting, Alice stepped into a waiting lift and was taken downwards to the Matron's Office.

She looked round approvingly at the room in which she found herself. Its floor gleamed like a mirror; wonderful old portraits hung on its walls, while the ceiling was a perfect example of the plaster work of a byegone age. The room glowed with an old-world atmosphere; it suffused the dignity of proud memories which it could not tell.

In sharp contrast were the people coming in and out of its doors, bright as flowers in the sun, with the many colours of their dresses.

Some wore blue, some pink, some yellow or green, or red; while others combined in one dress all the colours of the rainbow, with dazzling effect.

Alice herself wore, in honour of the occasion, the gown of an Oxford graduate, having taken an Honours Degree in Nursing. She was now contemplating the more difficult task of becoming a Probationer. Although completely up-to-date, Alice was a little impressed with all she saw, and was almost what her great-grandmother would have called "nervous" when she was eventually ushered into the presence of the Matron.

The Matron greeted her kindly, and Alice was conscious not only of power, but of personality.

"I know that you have a good brain and have used it well," the Matron began. "But do not be surprised to find in Guy's Hospital many things unheard of in Oxford. . . . Here is a list of the usual questions, which I I must ask you. Just answer with a brief 'Yes' or 'No.'"

It looked a very long list, so Alice said, with sudden inspiration:—

"Read it straight through, and I'll stop you when the answer is 'No.' Otherwise, I mean 'Yes'."

"A good idea," agreed the Matron, and began to read:—

"1. Are you qualified in Anatomy, Physiology, Hygiene and Hypnotism, Massage and Eurythmics, Ethics and Philosophy, Dispensing, Simple Surgery, Psychology and the Science of Colour . . .?" Alice stifled a yawn.

"2. Can you speak Latin and Greek, all modern languages, play two musical instruments, sing in time and tune, dance, debate, flirt, punctuate. . . "

"No!" said Alice suddenly. "Flirting is early Victorian, and punctuation unnecessary, except for the full-stop."

"Quite," said the Matron. "But in Hospital we have occasional dashes and full-stops are very rare. But I will go on. . . "

"3. Can you dust, scrub, polish, vacuum.

"S.O.S." said Alice.

"Sew, cook, organise, lead, instruct, command?"

"P.R.N." came the reply.

"Can you drive an auto, an aero, apply electricity, explain wireless telegraphy, mediate in Spiritualism and cope with insanity?"

Another ill-concealed yawn was the answer.

"Then, if you would care to visit the wards I'll send for the Governor," said the Matron. She took up what appeared to be a new fashioned pencil and wrote on a paper pad:—

"The Governor,

Miss Alice would like to visit the wards.

Matron."

But the pencil made no mark on the paper.

"Now what is the use of that?" thought Alice. Judge of her surprise, therefore, when the pencil suddenly jumped up of its own accord and wrote on the pad, in good black letters the reply:—

"Charmed to escort Miss Alice."

Governor."

* * * * *

Alice checked her surprise as the Governor opened the door. He was a pleasant-faced man of middle-age, and, greeting her cordially, suggested an immediate start. Alice surveyed him shrewdly.

"Thank goodness it's a man," she reflected. "They are easy to manage, delighted to talk, and flattered by feminine ignorance."

As though reading her thoughts, the Governor said—

"Any questions you care to ask, I shall be only too happy to answer."

"I should like to know something of the History of Guy's," Alice said. "How old is it!"

"Two hundred and eighty years old, this year, 2004. The Bi-centenary was celebrated eighty years ago, in 1924. It was a great occasion, I believe, and most picturesque. Everyone used motor cars in those days."

"But things have changed in many ways since then," Alice remarked.

"Well, yes—a little!" the Governor laughed. "A Junior Pro. for instance, arrived trembling and on foot in those days. Her reception was different from yours, Miss Alice. Picture it! She was buttoned severely into a starched linen frock; a mop and a rubber were thrust into her hand. She was made to sweep with a hairy broom, and to toil with 'Bluebell' and 'Komo.' If the telephone rang she was deaf from fright, and a question from the H.P. sent her voice into her boots. . . To-day the wards are bright, yet no one polishes; the wards are dustless, yet no one sees a broom. The hospital telephone, the curse of our sires, is replaced by the electric pencil, which is

much more reliable, being beyond either question or blame. Modern science has revolutionised hospital life."

"It must have been an expensive revolution," sighed Alice.

"The word 'expensive' is merely a comparative term," the Governor objected. "In 1924, Hospital life was certainly expensive. They actually paid their nurses salaries, in those days—salaries!—£20 to £30 per year to about 200 of them. The place also had its own electricity plant, its laundry and bakery, its staff of maids and workmen. It even paid its own Senior Surgeons £40 per annum."

"Stupendous," Alice exclaimed.

"Finance, to-day, is on quite a different footing," the Governor continued. "Eighty years ago, rogues and idiots controlled the riches of the world, while men of intellect stagnated penniless in professional backwaters. Capital and labour fought each other for supremacy. . . . To-day, an enlightened world knows that the only true Capital is Intellect and that Labour is its indispensable ally. Once this fact became thoroughly incorporated into the Government of Nations, the world advanced in leaps and bounds."

Alice nodded discreetly, and the Governor warmed to his theme.

"Every business, factory, mine, college and hospital, all agriculture and industry, are now financed by the Governing body, to whom all profits go. Every individual chooses for himself, the career which he most desires. He receives a salary from the Government, based on his own intellectual capacity, which is tested by the infallible methods of the Government's Intellect Estimations Department. This salary increases as his intellect increases. The result is, that each strives for self-advancement, through the medium of his occupation, thus increasing not only the products of the nation, but the sterling quality of its individual members."

"It seems somewhat unkind to the unfortunate creatures who have no brains to begin with," said Alice.

"But you forget that they are classified under the Manual Dexterity Compensation Section, and can earn a comfortable living; a little thought will show the subtle excellence of the scheme. In 1924, the country was governed by politicians, now we have men of intellect. Politics brought war, war brought poverty, poverty brought ill-health, lax morals, mental and physical degeneration. The hospitals became overcrowded and had to appeal, to beg, for money to carry on their splendid work. Yet no one saw the scandal of it. . . . That is why I objected to the word expensive in connection with a hospital. Such expenditure is in every way justifiable and necessary. To-day, quite rightly, the supply meets the demand, and—well, the Governor hasn't to worry about meeting the bills. He merely passes them on."

* * * * *

"Finance," Alice sighed deeply, "was never my strong point."

"I am charmed," replied the Governor, after a big breath, "to find a woman of to-day whom one may still call 'feminine.'"

Alice laughed.

"In twenty years time, that word now despised, will once again be the most popular one in the language."

"In spite of the present-day cult of mind development?" asked the Governor.

"No, *because* of it," Alice corrected. "You don't agree? Well, tell me, for instance, who is that man?"

She indicated a white-coated figure, visible beyond the stairway, as they entered the Medical Block.

"It looks like young Ayeone, the finest brain in the Hospital. It brings him a salary of £3,000 a year and he is only 25."

"I thought so," said Alice. "Look at him now."

As they drew nearer they saw that young Ayeone was talking to a girl in nurse's uniform. The two were lost to the world in the depths of each others eyes, and the man still pressed the button for the lift, which, having obediently arrived several minutes ago, shed its radiant light upon them.

The Governor turned away with a sigh.

"It's always happening," he said, pathetically, "in spite of our *best* regulations."

"Fuel to the fire," Alice laughed. "But tell me, is this an ordinary lift? It looks different."

"You are right. It is built to hold an electric stretcher-trolley and to convey it to the roof. The side of the lift opens and the trolley slides on to a smooth covered railroad and crosses to the building once known as the Surgical Block. There it meets a similar lift and is lowered to the Operating Theatres. The trolley has sliding sections containing all re-

quisites for the operation. The 'Theatre Box' is never dropped nowadays—a wonderful invention."

"Does the lift also go as high as the aero-station?" Alice enquired.

"Yes, you are right again. In a similar way patients who are convalescent can be taken without fatigue, first to the aero-station, then into the aero-ambulance, and so transferred to Guy's Country Extension, which is built high on the cliffs in the breeze of the English Channel. This great idea was a cherished dream in 1924 or thereabouts, but remained unrealised for many years."

By this time Alice and the Governor were ascending the broad stairway. To the left and right were the wards.

"This is the 'Blue Haven' Ward," said the Governor. "It has wonderful nerve cures to its credit. Neurotic, restless creatures have been soothed in a single night. We believe to-day in nervous influences rather than in test meals."

Alice walked down the ward wonderingly. Its floor was of rubber, in blue and dove-grey; the walls were grey, the curtains and coverlets all blues of soft harmonious shades which rested the eye without any sense of monotony.

"Are all these patients suffering from the same disease?" Alice asked.

"Not at all, but they all have the same temperament or mental tone and that is the essential part of all healing treatment. Let us cross over to the 'Rose-Glow' Ward."

"What a delightful place," Alice exclaimed on entering.

"You feel its effect already?" said the Governor. "It's cheerful influence never fails. Pink is the most refreshing draught for human eyes; that is why the Dawn brings it to us in the mornings, when we are at our worst."

The arrangements of the ward were identical with the first, but its colours were the glowing shades of rose petals. One felt unconsciously happy there. Alice noticed that boys in overalls were cleaning the ward—the touch of a dry cloth brightened the metal work; an electric vacuum cleaner dusted, washed and re-polished the floor in a combined movement.

A self-propelled dinner wagon brought along the lunches, and a trim, pink-clad nurse distributed them.

"What are they having?" asked Alice, in surprise, as each patient received a tumbler, a plate holding two or three tabloids, and a slip of paper.

"They are on various diets, all in tabloid form," was the reply. "The nourishment is highly concentrated, easily digested, and greatly improved by the slip of philosophy which the patient studies while eating. This man is on Farinaceous Diet; his Tabloids have a distinct outer taste of potatoes with a centre of Tapioca flavour. Let us read his slip of paper. . . . Ah, yes, listen!—

"It is not growing like a tree
In bulk, doth make man better be."

With a pitying glance, Alice passed on to the next bed.

"This man is on Light Fuel diet. The tabloids first taste of Chicken, then Sausage and Potato, with a centre of Custard Pudding. His philosophy? Let us see—

"I am not as good as I seem,
Yet I seem not as good as I am."

"Excellent," sighed the Governor. "Sister Roseglow is a wonderful woman."

"What is to happen to me next?" Alice enquired. "One ward has soothed my fears, the next has warmed my courage. . ."

"You shall choose your next sensation for yourself," said her guide. "We will go up to 'Brightest Bright.'"

They duly went, and Alice was dazzled at the wealth and variety of colours which the ward presented. Each cubicle was of different hue and glowed with coloured lights, yet each could be transformed at will to suit the requirements of its luxurious occupant.

Alice drew back, blinking feebly.

"Not to-day," she said, firmly. "Not to-day, thank you. What is that ward opposite?"

"The Queen Mother Ward. Its simplicity is very beautiful."

"We'll go there," announced Alice.

"Unfortunately I cannot take you," said the Governor, "as it is beyond my domain. All its Surgeons and Physicians are women, as well as its Nurses and Dressers."

"Of course," said Alice.

"If you are not too tired, let me take you to 'Yellow-ray' Ward and Sister will give us some tea. I am getting thirsty."

As soon as Alice stepped through the doorway, her weariness lessened and a new vigour coursed through her veins. Her mind revived; even a State Examination would not have alarmed her. The Yellow rays fell all about her.

"This ward is invaluable to students who are run down," explained her guide. "Many of the patients are business failures, or men-

tally apathetic after the ravages of fever. Some of them become very lively before being discharged. Hello, what is that fellow doing?"

A patient in a bed near by seemed to be swung (as though in a hammock made of strips of webbing) four of five feet in the air. He shouted angrily, straining to reach a pulley at his head.

"Let me down, let me down, I say!"

"Perhaps Nurse is going to do his back and he has got tired of waiting," suggested the Governor.

"No, she isn't. She's wound me up too high for that. It's revenge, I tell you!" shrieked the patient.

Just then Sister Yellowray came along, a woman of vivid face and dancing eyes.

"You are hardly decent," she admonished the patient, and pressing a button, caused his bed-curtain of rubber cloth to swing discreetly round his entire bed.

"Now confess," she said. "What have you done to Nurse?" After a sulky moment the patient burst out defiantly,

"Well, it was justifiable. I threw my tabloid at her because the layers went wrong. Who wants to begin with rice pudding and finish with roast beef and cabbage?"

"I must send you some more philosophy," Sister remarked, and re-appeared from behind the curtains.

"Now come along; I am sure you would like some tea, Miss Alice?"

The Governor licked his lips.

Half way down the ward a group of men stood in the middle of the floor, while from a bedside one addressed them.

"That is Dr. Rippleon going round," Sister informed them. "He is far too slow to-day; I think I shall have to hurry him. It is four o'clock and work is just stagnating. Besides, I want my tea."

She pressed another button, a large one this time, and something strange happened immediately. The group of men began to dwindle; one by one they went drifting away towards the door as though drawn by an irresistible suction, like that of a vacuum cleaner. Presently the great physician realised that he stood alone, addressing an empty space. He stopped in the middle of a word, collected his papers, took up his hat, and bowing towards Sister Yellowray, retreated through another, and safer, door.

"Now come and have some tea," said Sister, happily. "You'll love my room, Miss Alice. I have deep orange curtains and green flower bowls."

But Alice was not there.

Sister had forgotten to turn off the current, and Alice had been caught, gently drawn away, and hurried out of the door.

Hospital Information, etc.

Pass List.

Society of Apothecaries of London.

October, 1924.

Medicine.

*H. L. Bernstein. *R. Schofield.

Midwifery.

B. M. Francis.

*Have now completed the Exam.

Primary Examination.

Parts 1 and 2.

Physiology.

R. Franklin.

Change of Address.

Dr. Erskine Faraker, Keinton Mandeville, Near Taunton, Somerset.

Alan H. Todd, 20, Upper Wimpole Street, W.1. (and 33, Wildwood Rd., Golders Green, N.W.2. 'Phone: Speedwell 3382.

E. L. Martyn Lobb, M.S., F.R.C.S., Draycott, 106, Tonbridge Rd., Maidstone.

D. Arwyn Davies, Penybare, 28, Picton Tce, Carmarthen.

E. A. Leviseur, M.B., B.S., Court Chambers, 189, St. Andries Street, Pretoria, Transvaal.

N. A. H. Barlow, Surgeon Lieut.-Commander, R.N. Royal Marine Barracks, Eastney, Portsmouth.

Notice.

Guy's Hospital Dental School.

POST-GRADUATE Courses in Orthodontics and Dental Prosthetics will be held in the Dental Department of Guy's Hospital for Qualified Dental Practitioners.

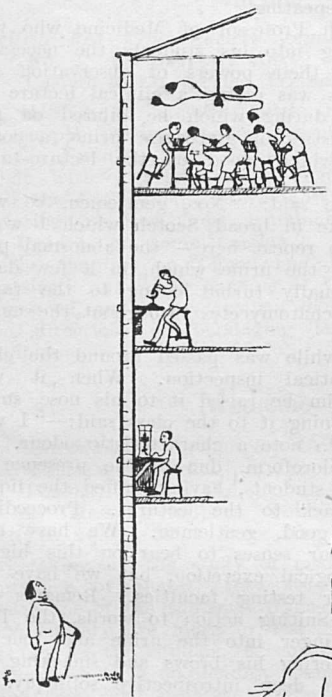
The Courses will each consist of six Clinical Demonstrations of 90 minutes duration, to be held weekly at 5.30 p.m. and commencing about the latter part of January or the early part of February, 1925.

The Classes in both subjects will be limited to six. Fee for each course six guineas.

Applications for admission to the Courses should be made to the Dean, Guy's Hospital, London Bridge, S.E.1.

The Courses will not be held unless the requisite number of six applications for attendance at each course be received.

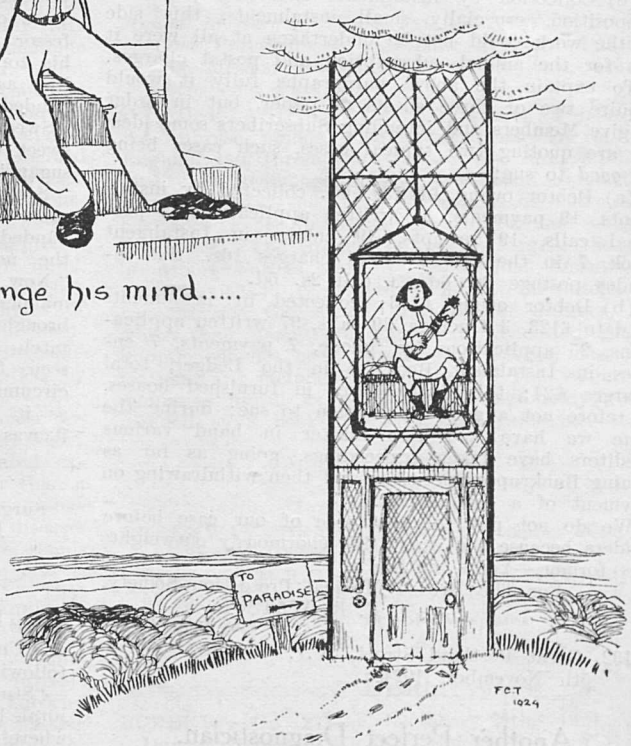
"I'LL BUILD A STAIRWAY TO PARADISE"



If the bard
came to
GUY'S—
surely.....

... he would change his mind.....

...and build
a lift
instead.



Correspondence.

Debt Collection.

DEAR SIR,—We have an elaborate and perfect system for the collection of overdue fees and debts of the Medical and Dental Professions.

Numerous members of both professions apply to us for "Terms" and having received same they carry the matter no further, therefore we are led to assume that the payment of an annual subscription (having already made a bad debt) is considered a bad speculation; such being the case we have deemed it wise to publish some of our reasons for charging an annual subscription.

(a) We could not afford to make such reasonable charges unless we had a definite source of income.

(b) To enable us to maintain a highly efficient organisation, which includes *honest* outdoor collectors.

(c) The difficulties and expense of collecting for two professions who have allowed the public to draw the conclusion that they do not sue for their fees; also, to the fact that, it would be bad policy for them to sue, because they are to an enormous extent dependant upon recommendation.

(d) To collect debts for the Medical and Dental Professions is generally a long and tedious process, because a Medical or Dental account is one which hardly any person makes provision for; income is generally divided under four heads, food, clothes, rent and pleasure.

(e) Collection by instalments is *not* a profitable proposition, especially small instalments, this side of the work could not be undertaken at all were it not for the annual subscription and postal charges.

To explain the above paragraphs fully it would require two or three sheets of paper, but in order to give Members and intending Subscribers some idea, we are quoting two typical cases, such cases being *no good* to sue:—

(a) Debtor owing £1 13s. 6d. collected by instalments, 19 payments, 31 written applications, 2 personal calls, 19 receipts, 19 entries in Instalment Book, 7 in the Ledger, total charges 16s., this includes postage 2s. 6d., 1 call 2s. 6d.

(b) Debtor owing £163; collected by instalments to date £123, 3 tracings, 39 calls, 97 written applications, 25 applications by 'phone, 7 payments, 7 entries in Instalment Book, 7 in the Ledger, total charges £24; this debtor lives in furnished houses, therefore not a good proposition to sue; during the time we have had this matter in hand various creditors have taken proceedings, going as far as issuing Bankruptcy petitions and then withdrawing on *payment of a composition.*

We do not put the best side of our case before readers because the worst side enormously outweights the former.—Yours faithfully,

For The British Medical Protection Society,
F. R. WATSON,
Secretary.

132, Great Portland Street, W.1.
5th November, 1924.

Another Perfect Diagnostician.

SIR,—The excellent and amusing satire under the heading *The Perfect Diagnostician* by "Gramenapis" in your issue for October 25th, recalls a story that was in circulation in my student days at Guy's which, if a chestnut, is instructive, and will, consequently, bear repeating.

A certain Scotch Professor of Medicine who was constantly instilling into his students the necessity of cultivating all their powers of observation for diagnostic purposes was giving a clinical lecture on Diabetes Mellitus during which he dilated on the physical characteristics of glycosuric urine, a cone-shaped glass of which stood on the lecture-table before him.

Taking it up he said: "Noo, gentlemen, ye will obsairve"—he spoke in broad Scotch which I won't attempt further to repeat here—"the abnormal pallor and clarity of the urine which, in a few days, will be as abnormally turbid owing to the rapid development of saccharomycetes throughout the sugary fluid."

The glass meanwhile was passed around the class for individual optical inspection. When it was handed back to him he raised it to his nose, smelt it, and then, returning it to the class said:—"I will now ask you all to note a characteristic odour, not unlike that of chloroform, due to the presence of acetone," and the students, having sniffed the liquid it was handed back to the lecturer. Proceeding, he said: "Very good, gentlemen. We have now brought two of our senses to bear on this highly interesting pathological excretion, but we have not yet exhausted our testing faculties. Remains the sense of taste." Suiting action to words, the Professor dipped a finger into the urine and touched his tongue. Puckering his brows and smacking his lips as though in deep introspective soliloquy, he handed the glass back to the students remarking: "Sweet, gentlemen, such urine is invariably very sweet to the taste owing to the presence of grape sugar."

Some thirty fingers having been dipped into the urine and touched thirty tongues, the glass was handed back, and thirty wry faces anxiously awaited the next piece of erudition from their mentor. "Now, gentlemen," he concluded in his extra dry manner, "I regret to have to say you have not brought your faculties of observation up to that pitch of perfection I should have liked to have seen, for had you noted my actions with adequate circumspection you would have observed that whereas it was the index digit I placed in the urine, it was the middle digit I placed in my mouth."

C. MARSH BEADNELL,
Surgeon Rear Admiral.

Surgeon Rear Admiral's House,
R.N. Hospital, Chatham.

Clubs' Union Council.

DEAR SIR,—At the last meeting of the Clubs' Union Council, it was decided *not* to insert the following new paragraph to Rule 16, viz.—

"Students, medical or dental, who enter the Hospital, having completed their Pre-Clinical studies elsewhere, shall pay an entrance fee equal to the current annual subscription." —Yours faithfully.

S. P. MEACOCK.

Guy's Hospital, S.E.1.

Reviews.

Nursing.

British Red Cross Society Junior Nursing Manual. No. 2. By BEATRICE AGAR. Published by Messrs. Cassell & Co. *Price 1s. 6d. net.*

THIS is an excellent little book giving a very simple outline of the essentials of elementary Home Nursing. The subject of each chapter is dealt with clearly and in non-technical language and the book should prove most useful to amateurs entering for Red Cross examinations or as a guide to lectures on home nursing.

The chapters on "Food and Feeding," "Surgical Nursing," and "The Nursing of Children," are specially good, and some excellent diagrams help to make the directions on bandaging less complicated for beginners.

Medicine.

An Introduction to the Practice of Medicine. By WILLIAM BOXWELL, M.D. (Dub.) and F. C. PURSER, M.D. (Dub.). Published in England by Messrs. Baillière, Tindall & Cox, London. Pp. xv. + 905. *Price 30s. net.*

IN taking up the study of medicine, the first impression of almost every student is that of the vast scope of the subject. Gynæcology, obstetrics and even surgery are more or less limited, at any rate as far as the student is concerned, but medicine appears to have no definite boundaries at all. After some time, and usually it is a very long time, he begins to see some relationship between his various medical cases, which fall under their various classes as systemic diseases, to which certain well defined pathological principles are common. For this reason it has always seemed that by reading some short outline on the subject of medicine as a whole at the beginning of his study, the student would approach that study in a very much clearer frame of mind, enabling him to see the inter-relationship of one disease with another and the general principles of pathology underlying both. The text books on medicine are far too large for a quick grasp of the subject and this very real want has been supplied by the book under review.

Written with the idea of giving an adequate account of a very big subject in a comparatively short, book, the authors have prepared an "unstinted explanation of a limited number of facts rather than a full list of facts with a limited amount of explanation." This will be seen in their account of diseases of the parathyroid gland. "Removal of these glands is followed by tetany inside a week. Little else is known of the part they play in metabolism." That is all they have to say on the subject, but phthisis receives twenty pages.

Each system is taken in turn and short accounts of the anatomy, physiology and methods of investigation precede the description of its diseases. Theories are not described; at the best they receive passing notice, but good, clinical pictures of the commoner diseases are given.

The print is large and clear and, recognising the rapid strides that are constantly being made in medicine, wide margins have been left to each page for notes. This makes the volume rather cumbersome, but is otherwise an advantage.

It is a book well worth reading and for the student, who requires an introduction to medicine and not a detailed text book, is excellent.

Surgery.

Landmarks and Surface Markings of the Human Body. By L. BATHE RAWLING, F.R.C.S. Sixth Edition. Published by Messrs. H. K. Lewis & Co., Ltd., London. *Price 7s. 6d. net.*

THE chief difference between this and the previous edition lies in the illustrations, which are almost entirely new, the blocks used in the last edition having become very worn by the publication of seven reprints. The new diagrams are very clear and leave an impression on the mind that is not dimmed by unnecessary detail. The descriptions also are brief and clear and the book retains its excellence as a short handbook of surface markings. The diagrams at the end of the book will help the student to memorise the centres of ossification of the leg bones, the times of appearance of which are so apt to escape the memory.

Manual of Surgery (ROSE AND CARLESS) *for Students and Practitioners.* Eleventh Edition. Published by Messrs. Baillière, Tindall & Cox, London. *Price 30s. net.*

"ROSE AND CARLESS" is now a household phrase among medical students not only in England but throughout the world. First published twenty-six years ago, it has been found to meet the requirements of successive generations of students and has been kept up-to-date by careful and constant re-editing. The present edition is largely the work of Albert Carless, one of the original Authors, assisted by C. P. G. Wakeley and several others, who have revised the special branches of Surgery, with which their names are connected. The Radiographic Supplement has been retained and several new illustrations are included in the text. The volume remains as useful as ever, and is thoroughly recommended as a book for study and reference.

Marriage.

GREENWAY—DEARMAN.—On September 20th, 1924, at St. Matthew's Church, Exeter, Charles W. Greenway, M.R.C.S., L.R.C.P., R.A.M.C., only son of Dr. Charles Greenway of Plumstead, S.E., to Beryl, second daughter of Mr. and Mrs. A. W. Dearman, of Exeter.

Death.

ROBERTS.—On Friday, October 24th, 1924, John Dungey Roberts, M.R.C.S. Eng, L.S.A., of Ealing, W., aged 86.

Students' Club Library—Catalogue of Books.

(*Continued*).

MILLMAN, H. H. History of Latin Christianity. 9 Vols. 1883.
——. History of Latin Christianty. 8 Vols. in 4. 1881.
MILTON, by Mark Pattison. 1890.
MITCHELL, E. B. Boxing. 1889.
MOMMSEN, Theodor. The History of Rome. Translation by William P. Dickson. 1888.
MOORE, George. Modern Painting. 1893.
MORLEY, John. On Compromise. 1891.
——. Studies in Literature. 1891.
——. Sterne's Tristram Shandy; Speeches and Letters of Burke; Sheridan's Plays. 1889.
MORLEY, Henry. Plays from Molière. 1887.
——. Burke. 1889.
——. Plays from Molière; Butlers Hudibras; Izaac Walton's Lives, A.D. 1663—A.D. 1733. 1889.
MORRIS, Wm. The Defence of Guenevere. 1889.
——. The Earthly Paradise. A Poem. 5 Vols. 1886.
——. A Dream of John Ball and A King's Lesson. 1892.
——, Richard. The Poetical Works of Geoffrey Chaucer, with memoir by Sir Harry Nicolas. 6 Vols. 1885.
——, Mowbray. Hunting. 1889.
——, Lewis. The Epic of Hades. 1889.
MOTLEY, J. L. The Rise of the Dutch Republic. 1889.
MOTTEUX. Adventures of Don Quixote de la Mancha. N.D.
MOXON, W. Pilocereus Senilis. 1887.
MOZLEY, J. B. Sermons preached before the University of Oxford. 1886.
MULLER, F. Max. The Science of Language. 2 Vols. 1891.
MYERS, Ernest. The Iliad of Homer. 1891.

NEWMAN, J. H. Characteristics from the Writings of. 1890.
NEWMAN, J. H. C. Apologia Pro Vita Sua. 1891.

O'CONNOR, T. P. The Parnell Movement. 1889.
OLIPHANT, Mrs. The Makers of Florence. 1889.
——. Cervantes. 1880.
OLIVIER, Sydney. Fabian Essays in Socialism. N.D.
ONSLOW, Earl of. Yachting. 1894.
OSBOURNE, Lloyd. The Wrong Box. 1889.
——. The Wrecker. 1892.

PALEY, F. A. The Tragedies of Aeschylus. 1879.
PALEY, Wm.. Natural Theology. N.D.
——. The Evidences of Christianity. N.D.
PALGRAVE, F. T. The Golden Treasury. 1890.
The Poetical Works of John Keats. 1889.
Paris, An Englishman in. Reign of Louis-Phillippe. 1892.
PARKER, W. Newton (Translator). The Germ Plasm. 1893.
PARNELL, Thomas, The Poetical Works of. N.D.
PATER, Walter. Appreciations. 1890.
PATTISON, Mark. Sermons. 1885.
——. Memoirs. 1885.
——. Milton. 1890.
PAYNE-GALLEWAY, Sir Ralph. Shooting: Moor and Marsh. 1889.
——. Shooting. 1889.
PEARSON, Karl. The Grammar of Science. 1892.
PEEL, Sir Robert. See Justin McCarthy. 1891.
PEMBROKE, Earl of. Yachting. 1894.
PENDENNIS, Arthur. The Newcomes: Memoirs of a most Respectable Family. 1890.
PENNELL, H. Cholmondeley. Fishing. 1889.
PEPYS, Samuel, The Diary of, from 1659—1669, with memoir, edited by Lord Braybrooke. N.D.
PHILLIPS-WOLLEY, Clive. Big Game Shooting. 1894.
PLUTARCH'S Lives, Grecian Section; Agesilaus to Theseus the Argonaut. N.D.
——. Alexander the Great to Timolean of Corinth. N.D.
——. Caius Gracchus to Titus Quintus Flaminius. N.D.
——. Cato the Younger to Pompey the Great. N.D.
POE, Edgar Allen, The Poetical Works of, (see Joseph Skipsey. N.D.
POLLOCK, Walter H. Fencing. 1889.
POPE, Alexander, The Poetical Works of. 1878.
POULTON, Edward B. (Editor). Essays upon Heredity. 1892.
PRESCOTT, William H. Ferdinand and Isabella the Catholic. 1890.
——. History of the Conquest of Peru. 1889.
——. History of the Conquest of Mexico. 1889.
PREVOST, Camille. Fencing. 1889.
PRIOR, Matthew, The Poetical Works of. N.D.
PRITCHETT, R. T. Yachting. 1894.
PURVES, D. Laing. Voyages round the World by Capt. James Cook. N.D.

"Q.' Dead Man's Rock. 1892.
——. Noughts and Crosses. 1893.
Quarterly Review, The. 1891—92.
Quincey, Thomas de. The Unrecollected Writings of, by James Hogg. 1890.
——. Confessions of an English Opium-Eater, A.D. 1800—A.D. 1824. 1889.

RAWSON, Sir Rawson W. England and her Colonies. 1887.
READE, Charles. Christie Johnstone. 1868.
——. The Cloister and the Hearth. 1890.
——. Its Never too Late to Mend. 1890.
——. Hard Cash. 1890.
RECLUS, Elsie. Primitive Folk. N.D.
REEVE, Henry. The State of Society in France before the Revolution of 1789, and the causes which led to that event. 1888.
REID, T. Wemyss. Life of Rt. Hon. William Edward Forster. 3 Vols. 1888.

(To be continued.)

Sport.

Rugby Football.

Guy's v. Harlequins.

A GOOD crowd mustered at Honor Oak Park on the last Saturday in October to witness Guy's overcome the Harlequins by 2 goals 2 tries to 1 goal. The visitors turned up with an unknown team, that is, uncertainty prevailed up to the last moment who would represent them. Eventually H. V. Brodie, a forward, played on the left wing and it is said that W. H. Meissner played in the pack; personally I did not pick our old half back out in that novel position, for him. We had difficulty in filling our left wing place. C. L. Steyn, all know about, happily he is recovering satisfactorily; G. R. Mostert is on the injured list and J. W. Finnemore had an exam. to contend with. H. W. Leslie, better known in the Athletic World, came into the side and did remarkably well. He handled securely and was quickly off the mark. With more practice he will do well. He soon had a couple of openings from Van Schalkwijk, but was overhauled, he, on both occasions, trying to swerve too soon. The forwards got the ball alright, but Preen, who manfully tried the scrum half position, was not very successful and therefore our attack suffered. After a first half that was pointless, Clark went to the scrum base and Preen took up fly half, Van Schalkwijk going centre. At once a change came o'er the scene and two tries, one from Fellowes-Smith and one from Leslie rewarded the new arrangement. Both half backs were now giving a great display and the three-quarters were set well going. But the forwards were really the mainspring of the whole thing. B. G. Scholefield was in the very best form and ably did J Durr keep his men going. Splendid dribbles by the last named and by Clark led to two more tries and Van Schalkwijk was in both cases successful with the place kicks. Graham-Davies got a couple of nasty bangs, but in both cases he pluckily resumed and stuck it out to the bitter end. Good in the tight work was N. M. Holloway and a real worker is W. H. Myburgh. All the pack did well and Spence was as usual, at full back, his usual efficient self.

The Harlequin score was obtained by Brodie and converted by Wakefield, the England Captain. It was fitting that Brodie should score. He had played well and is almost as good a threequarter as he is a forward. Wakefield was not seen very much. V. G. Davies played a good game and all the three-quarters in the Harlequin line were forceful in attack. H. P. Marshall the old Oxford Blue was very prominent in the Harlequin forward line.

All through the second half the Harlequins were mastered by our pack and the margin of 16 points to 5 in favour of the Hospital was richly deserved.

Guy's Team.—P. D. B. Spence, G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, H. W. Leslie, G. Clark, V. R. Preen, J. Durr, B. G. Scholefield, W. H. Myburgh, G. G. Cameron, N. M. Holloway, J. W. Schabort, E. W. Hutchinson De Wet Vorster.

Guy's v. Old Blues.

FORTUNE, in the way of weather, was very much against us at Honor Oak Park on Saturday, November 1st. It rained heavily and with the utmost persistence all the afternoon, yet it was a great game and by the spectators very much enjoyed. One fears that the players could not have had so much pleasure in the game, because of the conditions. Yet what a glorious display it was. Both sides gave of their very best, and the only marring incident was that S. R. Trick had his nose broken in going down to a rush and thus for practically half the game we played one short. It was really splendid the way the Old Boys handled the greasy ball; our side did more in the way of rushes, loose play and touch finding. The two best forwards at this game were G. G. Cameron and J. Durr. Yet the Old Boys kept us on the defensive and only worthy defence by Spence, aided by Clarke and Fellowes-Smith prevented our line being crossed. Well did the Old Boys handle and their heeling too was splendid. In this department of the game we appeared wanting. Several times it looked as though the passing of the Blues must end successfully, but something went wrong at the last moment. Some good kicking was indulged in by both sides. Franklin, the Old Oxford Blue, found long and useful touch. He played well throughout. The competing efforts of Franklin and Spence were interesting, as an International Selector was present, spotting players for London v. New Zealand and he keenly watched both men. In the first half Jennings sent Collins over after a scrum on the line.

The second half opened with Guy's still acting on the defensive, and J. W. Schabort came out of the pack to take Trick's place on the right of the three-quarter line. We were not getting the ball from the scrums and when it did come out Clarke was not quick enough for S. H. Wales, who had a perfect understanding with his brother at fly half. Now Guy's began to assert themselves and all the forwards played up superbly, Van Schalkwijk aiding with most judicious kicks. Some thought he kicked too often, but one must remember, accurate handling was very difficult and his regular line was not with him. Mostert and Graham-Davies were away and Preen must, like Clarke have found playing on the surface of grease, very embarrassing. With about 5 minutes to go, came the equalising score. Hutchinson scoring after a period of strong pressure by the Guy's men. Desperately did the Hospital men try to snatch victory, but it wasn't to be and a fine game, well played by both teams, ended in a draw of one try each. The distinguished Selector, after the game, told your reporter, it was a very fine game indeed. He left the ground well pleased with both teams, and well pleased with both full backs. One doesn't envy him his task of choosing the better of the two. Of the forwards one must single out G. G. Cameron. It was a great day for him, and also for J. Durr. The others in the pack did well but not well enough in the tight, or else the Old Blue hooker was a bit too much for us.

Guy's Team.—P. B. D. Spence, S. R. Trick, G. Fellowes-Smith, J. G. Van Schalkwijk, H. W. Leslie, G. Clarke, V. R. Preen, G. G. Cameron, J. Durr, W. H. Myburgh, N. M. Holloway, G. G. T. Tregarthen, E. W. Hutchinson, W. Radford, J. W. Schabort.

Hockey.

Guy's Hospital v. R.M.C., Sandhurst.

THIS match was played at Sandhurst on Saturday, the 11th October, and resulted in a victory for the R.M.C., by 9 goals to 2.

Guy's started well by keeping up a hot attack for some fifteen minutes, and were only kept out by good tackling and clearing by the Sandhurst backs. At last our forwards got well into the circle, and Howitt, who played a sound game at half, backed up well and scored from the edge of the circle.

Very fast up and down play followed, with the advantage to Sandhurst, who were now playing well together, and scored twice in quick succession. Soon afterwards the Sandhurst forwards ran through our defence and scored with a shot that gave Smith no chance.

The R.M.C. continued to press and twice hit the ball over our goal, and then Guy's carried the game into the Sandhurst circle and had bad luck in not scoring, the ball hitting a goal post. The ball was hit up to the Sandhurst left wing, who after a fine run scored from a difficult angle near the goal line.

Sandhurst again attacked and scored from a free hit. Smith was next conspicuous with two fine saves from hot attacks, but the R.M.C. were again successful a few minutes later with another goal, just before half-time.

After the interval the Hospital pressed strongly, and Hunt made several fine runs down the wing, but was not closely supported.

The R.M.C. then resumed control of the game and good backing-up gave them their seventh goal, which was shortly followed by their eighth, due to hesitation on the part of our backs caused by one of the referees unintentionally blowing his whistle. Even play followed, but a display of good combination by the Sandhurst forwards gave them their ninth goal.

Guy's, after the bully-off, took the ball into the Sandhurst twenty-five and a good individual run by Cautley was well cleared. Guy's continued to press and Cautley scored our second goal. The game ended with the R.M.C. attacking hard and Awdry putting in some fine defence.

Guy's Team.—R. E. Smith, M. F. Awdry, G. N. Carrell, C. N. Howitt, A. C. Kempe, G. R. Ford, W. S. Hunt, A. H. Curtis, R. L. Cautley, R. L. Peregrine, L. J. Barford.

Notices.

Specialities.

"Golden Shred" Mincemeat.

Messrs. JAMES ROBERTSON & SONS, LIMITED, Golden Shred Works, Catford, S.E.6.

THE above Firm, which is so well known for the excellence of its jams and marmalades, also make "Golden Shred" Mincemeat. This, containing as it does a large proportion of fat, mingled with sugar and fruit, is not only appetising, but contains all three vitamins, thus making it a valuable food, especially for growing children.

It has been analysed both by scientists and doctors with good results, and pronounced to be absolutely pure, without any harmful preservative and of great food value as an all-the-year-round article of diet.

"Granola" Digestive Biscuits.

Messrs. MACFARLANE, LANG & CO., LTD., Imperial Biscuit Works, Fulham, S.W.6.

THE "Granola" Digestive Biscuits produced by this Firm are of the highest standard. They are made of specially prepared wheatmeal, malt and fresh milk, are easily assimilated, and form a nutritive and delicious food for invalids, children, and those in robust health.

They may be purchased in ½-lb. packets from any grocer, and owing to the excellence of the materials used, claim to be the finest of all digestive biscuits.

Messrs. Macfarlane, Lang & Co., Ltd., will be pleased to send further particulars to Medical Men on application to the above address.

"The Proper Adjustable Foot Rest."

The P.A.F.R. Co., 36, North Gate, Newark-on-Trent, Notts.

ONE of the most important rules for those wishing to enjoy perfect health is to avoid constipation. The P.A.F.R. Co., give valuable aid in this respect by the introduction of their Proper Adjustable Foot Rest.

Generally speaking, lavatory seats are too high, and in any case the erect sitting position is bad, and apt to cause overstraining and congestion.

The foot rest is a clever contrivance which can be fixed to the floor, and by means of levers is raised to any height; this ensures the correct position of the abdominal muscles, brings the line of force into the line of outlet, and gives an easy and thorough evacuation.

The cost is very moderate, and the makers will be pleased to send further particulars to Medical Men on application to the above address.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *November 22nd, 1924.* *Number 949*

PASSIM

PEOPLE will keep saying things and it seems quite useless to try to stop them. It is not always clear, who they are, these sayers of things, but they are constantly being quoted—often as incontrovertible authorities. They are much used in support of broad statements, such as that the winter is to be a very severe one, or that the income-tax is to be reduced or even that the next-door neighbour is leading a double life, and ought to be ashamed of it. Any such statement, if its accuracy be questioned, receives the greatest help when followed by the satisfactory support that anyhow *they* say so. And so they do—continually. *They* say everything on every conceivable question and undoubtedly should be held responsible for everything, if only they could be identified.

But they are not all anonymous, these people, who say things. Some of them actually say them when they have more than one listener, while others are so delighted with what they say that they write it as well. This is a very good thing as it helps to keep down the numbers of the unemployed, by giving work to busy students, who hunt up everything that has ever been said or written by anybody and compile large volumes of "Quotations," for other journalists to borrow. So when we say that "someone" has said something, we are not referring vaguely to some local scandal-monger, but to some great man or woman, whose name lives for ever in the "Book of Quotations," but escapes our memory for the moment.

With this small point made clear, we announce that someone has said that a man should know something of everything and everything of something. Who this great optimist was is not quite clear, but he might quite easily have been an examiner in the final medical examination of the University of London. Very likely he was nothing of the kind, but just an ordinary man, like an Average Adjuster or a Public Health Official, busily concerned with the country's statistical health; but whoever he was, he was an idealist and, like most idealists, probably finished his life sadly or happily in despair or an asylum. We do not borrow the quotation here because we think that it is a good one in principle; far from it. We feel much more inclined to follow the people, if there be any, who say, "know thoroughly those facts that are essential to you and be content with them," but we have noticed lately a deepening gloom on many of the faces, being hurried through the Park and we fear that their owners are striving after that impossible ideal, the knowing something of everything—everything, that is to say, that concerns the art of medicine. We imagine them shooting through the Hospital like so many motile bacilli in a hanging-drop, writing up cases in the wards, attending "rounds," visiting out-patients and autopsies, worrying and bothering over the many clinical sides of Hospital Life, fearful

lest they miss even one lecture and nonplussed when two are found to be given at the same time. At home in the evening, we think that their life is run to a set programme, and they struggle with overpowering sleep to read their hour's anatomy, their half-hour's pharmacology, their fifty pages of surgery, the one medical disease and proportional amounts of each of the other subjects, of which they have resolved to read so much each day. Very soon, this method of "study" reduces their minds to a chaotic condition, in which the exact amount of dye to be used in the phenol-tetrachlorphthalein test stands out brilliantly against a confused background of vague signs and symptoms that have become disassociated from their respective diseases. The worse the mental confusion, the harder works the victim until, on the eve of that great, long-dreaded test, the examination, he awakes to the awful realization that he "knows nothing"—and sits up working all night. This state is the direct outcome of an attempt to know something of everything, which is the ideal motto for all, who would display before their inquisitors advanced signs of confusional insanity. Knowledge cannot be acquired by reading against time. The number of men, who read thirty or forty pages, without having printed on their minds the meaning of a single one, must form a very high percentage of all medical students, and a very small percentage of the successful ones. If only they would be content with the facts essential to them, they would do infinitely better. These facts are the practical, everyday ones, that they meet in their clinical studies, the ones relating to their cases in the wards, the ones connected with their out-patients. They are the facts to know thoroughly, the ones connected with patients, that have been seen and examined, and are for that reason engraved on the mind for all time.

Reading, in order of merit among the methods of study, does not rank even second which place is easily held by discussion. To talk about a matter with friends, referring to books only to settle points of argument, is the most surprising way of acquiring knowledge that there is. Surprising, because a man may know all about a disease until he tries to expound his knowledge to someone else, when it is apt to leave him speechless in the most unaccountable manner. He may read the same facts each day for a week and not know them, but if he can talk about them or stand up before his colleagues and explain them, he is more than likely to sit down with them imprinted on his memory. This rather self-evident statement is not generally known, or how comes it that the attendances at the Physical Society's Meetings have grown so few? We should have thought that those meetings, which afford such a wonderful opportunity for expressing one's opinion, and for gaining confidence in public speaking, which is akin to gaining confidence in attending oral examinations, would have been attended by every man, of whatever year, who is studying in the wards. At the joint meeting with the St. Thomas's Physical Society there were about twelve Guy's men and forty or fifty St. Thomas's men; at the last meeting for Guy's men only there were less than ten. We do not think for a moment that this is due to apathy towards the Society; it is due largely to the erroneous idea that to break from the usual reading for one night would be to court trouble at the examination. No more unfortunate idea could possibly be entertained and we hope that the large attendance at the next Physical Society Meeting will show that it has been abandoned.

▭

THE season of Harmony approaches; the International Poultry Show has been held at the Crystal Palace; and the British Broadcasting Company has thrilled many thousands of listeners with songs from animals at the Zoological Gardens. But wilder music is yet to come. The "Niggers" have started their annual practices for the Christmas cacophany, and headaches are the order of the day within a wide radius of the College. We have had the privilege of listening to them, in spite of closed windows and cotton-wool in the ears, and so can testify to the rich throatiness of their songs, compared with which the combined chorus and orchestra of the Choral Society is timid. At the same time it is to the Choral Society's Concert that we shall go and hope that all Guy's men and women will do the same. This Society takes endless trouble to produce their excellent programmes, which always reach a very high standard. The date of the next concert is announced on another page.

▭

AND the Massage Block has not been called "Shepherd's House" because the "Lambs" live there!

Guy's Hospital Bicentenary Appeal.

Forthcoming Events.

Mayfair Dramatic Club.

On November 24th, 25th, and 26th, at the Scala Theatre, the Mayfair Dramatic Club are giving their performances of "The Maid of the Mill." Notice has already appeared of this, and it is gratifying to know that seats are selling well. There are still some more tickets to be sold, and it is hoped all who possibly can will avail themselves of these. The cheaper seats at 3s. 6d. and 4s. 9d. can be thoroughly recommended either in the stalls or dress circle.

Whist Drive.

On November 28th a Whist Drive has been arranged by the administrative staff to be held in the Out-Patient Department, at 7 p.m. This promises to be a very enjoyable and amusing evening. Tickets are 2s. 6d. each, which includes light refreshments. Mrs. Eason has very kindly consented to give away the prizes.

Residents and students and their friends are particularly invited to this and a full attendance is eagerly expected. Morning dress will be worn. Tickets can be obtained from the Out-Patient Department or the Counting House.

Dance at the Grand Hotel Eastbourne.

We are grateful for the support of the Grand Hotel, Eastbourne, for our Bi-Centenary Appeal.

On November 28th a Cabaret Dance will be held in the hotel. Tickets are 5s. each. Dancing from 8.45 p.m. until 12 midnight. The "Folies Rouges" will appear at 10.15 p.m., and Jenkier's Band are playing for the evening.

Dance at the Suffolk Galleries.

On December 9th Dr. and Mrs. R. Tilbury, Elizabeth House, Eaton Square, S.W.1, are very kindly organising a dance in aid of the Appeal. The tickets are 10s. 6d. each and include refreshments. The Dance will take place at the Suffolk Galleries, Suffolk Street, S.W.1.

This promises to be a very enjoyable evening and Mrs. Tilbury has promised not to overcrowd it. Dancing commences at 9 p.m. and goes on till 1 a.m. Any who can manage to go will certainly see many familiar faces, and it is greatly hoped we shall have a very representative evening. Early application for tickets, which are numbered, is advisable. Tickets can be obtained from Mrs. Tilbury, or from the Secretary to the Treasurer, Counting House, Guy's Hospital.

Court Room Dances.

We are greatly indebted to the Guy's Hospital Ladies' Association for giving two Court Room Dances in aid of the Bi-Centenary Appeal. All who have ever been to the Court Dances before will welcome this notice with great joy. They will take place on December 16th and 17th, from 8 p.m. to 12 midnight. Tickets can be obtained from the Hon. Secretaries, Mrs. H. L. Eason, Superintendent's House, or Mrs. Ogilvie, 27, Hamilton Terrace, N.W. 8. These tickets are numbered and strictly limited.

Our thanks are due to Mr. and Mrs. Eason who so kindly suffer considerable discomforts in their house in order to make these dances a success.

Gala Night at the Piccadilly Hotel.

We are most grateful to the Piccadilly Hotel for their generous support to our Appeal.

On December 19th a special "Guy's" night will be held in the Grill Room of the Hotel. A special dancing floor is being laid and the full cabaret of the "Piccadilly Revels" will appear.

Supper, dancing and cabaret are all inclusive for One Guinea. Dancing will commence at 9.30 p.m. and go on until 2 a.m.

Further notice of this will appear later.

Memorial Service.

His Royal Highness, The Prince of Wales, the President of the Hospital, has graciously consented to be present at a Memorial Service to be held in Southwark Cathedral on January 6th, 1925, in memory of our Founder.

Full particulars of all the above events can be obtained from the Secretary to the Treasurer, The Counting House, Guy's Hospital.

A Retrospect.

1869—1924.

Before the introduction of Listerism, nothing was too dirty to be used for operation. The oldest coat, stiff with dried blood and pus, and generally a cast-off light overcoat would do. Indeed, the dirtier and older it appeared, the more it testified to its wearer's experience. Hands, smeared with the discharges from other cases and wounds, just got a superficial wash. That was all that was necessary in going from one case to another, and more for the sake of appearance than anything else.

Arthur Durham, although of the old school, for these were days of pre-Listerism, was very fond of having dressers who studied his little tastes in dressings, and kept his septic and all other wounds well dressed in clean bandages, etc. One of my cases, when his dresser, suppurated *so freely*, that in the morning the dressings and bandages were soaked through with pus. No remark was made; it pleased him rarely, when he arrived to go round, to see that *all* the old dressings had been changed for clean ones. These were again removed for his inspection and fresh ones put on. My successor was not tidy or particular, and left all the dirty things on. I asked him why he did so. "Do you think I am going to be at the trouble of dressing things twice?" he said. Durham evidently noticed the disgust on my face, for he came up and said in a low tone, "I have tried kindness and all other gentle ways with these men, but it is no good. So now I will try the other thing." He did, and from being the very nicest surgeon to dress for, he became a perfect terror.

One surgeon I remember got into the habit of carrying a towel round the ward with him, on which he wiped his hands from time to time; sometimes they were washed, sometimes unwashed. In one private abdominal operation case I remember well, I had to be firm to the verge of provoking anger, when, as I was about to do a laparotomy for an old Guy's man who had been full dresser, and probably would have been H.-S. if he had cared to stay up, this view of washing happened. He was rather late in arriving at the house to keep his appointment, having been delayed at a confinement. He made haste and came hot-foot from the other bedside and strongly resisted my appeal for him to *sterilise*, as well as wash, his hands, and change his coat before coming near the operation table. He said that he had already washed his hands before leaving the last house, and he thought that was sufficient. Had we not been the best of friends and he one of the best tempered of men, the operation might never have been performed.

Listerism at that time was well established, but it was not adopted, nor over popular, with every surgeon, for it was still comparatively early days and much of the discipline mixed, useless details retained and some essentials neglected, some essentials, now insisted on, not being then even known and some of the routine being only faddy. This doctor had been dresser to Bryant, and Bryant was a pronounced unbeliever in Listerism, and he neglected no opportunity of expressing his unbelief in such "useless nonsense." So his dressers, in a measure, were lacking in experience. So no wonder they looked on it as a reflection on their personal habits of cleanliness to be told to use soap and water well, and then for me to examine the finger nails, etc. Of course, they saw the practice of the other surgeons, some of whom were most devoted followers of Lister, so they had, in common with every other student, every opportunity of learning the various ways of infecting a wound, even though they were not privileged to *do* and assist in the various performances.

Many of the little things then taught were quite necessary, and some wrong, and as such brought discredit, in some minds, on the whole system, which they voted "all rot." These had to be lived down. Others had the wisdom to see where the truth lay, and that some details required further investigating and testing for separating the true from the false, and the essentials from the non-essentials. All this required much patience, and a steady unflinching pursuit of facts; rejecting ruthlessly what proved worthless, and clinging most pertinaciously to what was proved to contain truth. All this required more courage and discipline than the student of the present day can realise.

The following little incident will show through what a dense fog of old tradition and worthless conclusions the workers of my day had to fight their way. "Be careful when you have to tie an artery not to drag it about, or lift it up from its bed, more than is absolutely necessary. We had to tie a femoral the other day and the operator lifted the vessel up from its bed more than was really required to pass the aneurism-needle and thread under it. The artery was thus separated from its sources of nutrition. The wound suppurated and there was no other cause but this." This was said to me in good faith; as a fact, all such ideas had to be lived down, pushed aside and proved untrue before we gained our present position of accuracy and knowledge.

I have had to keep on several occasions a patient under chloroform, after removal from the theatre, for an hour and a half, whilst the dressings and splints were being applied, according to the complicated formula of early Listerian ways for dressing an excision of the knee-joint. One by one, most of these have been found to be unnecessary and dropped. Some, who were amongst his earliest followers, anxious not to leave out an important detail, continued to put up operations in the same way as in the early days, to the end of their practice; others have kept in the van and led us on the right way; such a one was Jacobson.

In resection of the knee-joint Lister's early methods were nearly all concerned with the dressing and subsequent treatment. As failure after failure occurred due to re-infection from septic sinuses, these dressings, etc., became more and more complicated, so that many surgeons, seeing the ultimate failure of the operation due to causes not then suspected, broke away from their belief and went back to the old style. Limbs and lives have been lost without number by the dereliction of these men, which might have been saved by a thorough, aseptic operation as now practised.

Men of the present day cannot estimate the courage and patient perseverance of the surgeons of that time, who stuck to their guns and handed down to us of the present time the glorious gift of aseptic surgery, freed from its unnecessary trammels of useless routine. What a legacy! What a glorious panorama to have been privileged to see and follow these mighty men and their works, in which Guy's has played no mean part.

Bryant was not one of these. He pushed his personal opposition to an extreme point, beyond reason. He was considered a great *teacher* of surgery in the old days, so that the reputation he gained, did much to prevent the advance of the new school. He was a leader, and therefore not to be led. In fact, he was Thomas Bryant. The following is a good example of the extent to which he would go, when his reputation was at stake.

A very oblique fracture of the tibia was admitted into Cornelius Ward under him. The dresser had put up the fracture so admirably that the even line of the anterior border seemed unbroken, though really it was a complete simple fracture ending in an unusually sharp point.

As House Surgeon I always went round with the Surgeon for the week, so when Bryant went round next morning and came to this case of fractured tibia the dresser was temporarily not present. So when Bryant asked, "What is this?" I answered, "a fractured tibia." Bryant ran his fingers down the anterior border and felt no displacement or irregularity. "Nothing of the kind," he said, "that is no fracture, the bones are not broken, you are mistaken. *He* did not require the splints taken off; he could *tell* without." The contradiction was made in such a loud pronounced voice that it left the opinion in the minds of the crowd present that the dresser was not a competent man. Fortunately I had seen the displacement on the man's admission, and felt vexed that the dresser, who was a careful, capable man, should suffer in so marked a way. So I fetched him and told him to take off the splints and let the fragments fall out of position. Bryant was then brought back and shown the leg. He looked at it and turned away without remark. "What is that sharp point under the skin?" I asked. "Oh, perhaps he fell on a needle," he replied with a laugh, which was his only remark. This inconsiderate obstinacy and disregard for the reputation of others explains much of the talk and gossip one heard, and probably largely helped to bring about the ultimate result of his career as a surgeon. He wanted a touch of Arthur Durham's bonhomie. On such an occasion, if it could possibly have happened, Durham would have smiled and bowed and said how proud he was of his dresser and how capable a surgeon he was to put up the fracture so accurately that he could not detect it. It was no mere pretence, but he would have

looked so pleased that it would have seemed as though he was about to kiss the dresser. In one instance where the dresser succeeded in the treatment of a case, where Durham had prognosed failure and gangrene, Durham positively gave a clinical lecture on the case, saying how great was the skill of the dresser and how proud he was of him. No one but a man who had been full dresser in those days of great trust and confidence placed in him, can tell how these little incidents spurred him on to do his best. Jacobson was almost never out of the wards, but treated his patients quite regardless of the toil and hard work and time he gave up to it.

In its early days, before the value of antisepsis was fully recognised or understood by surgeons who thought they kept themselves up to date in surgical work, some ludicrous and even fatal misconceptions came to light as to what Listerism meant. Here is an example. One of the leading practitioners of a large town, who thought himself one of Lister's followers, was called in to a wounded hand, which had been allowed to get dirty and sloughy. The only impression left on this man's mind by Lister's grand work regarding the treatment of wounds was "infrequent dressings."

So far he had had good results in the cases of superficial wounds which he had treated under this one light; first washing them well and then not removing the dressings for a week. But in this last case the man seemed to grow worse and worse every day, until his friends thought they would call in a more modern surgeon, who had been educated entirely within the Listerian period and would naturally be more fully acquainted with the treatment of wounds. Though younger, he was more experienced, as his practice was more especially devoted to surgery, and he might understand the limitation of this new term "infrequent dressing."

On removal of the dressings, which had been on for a week, the wound was seen to be in a terrible state. The hand was gangrenous already, and it was spreading up the arm. The man himself was too far gone to recover, and ultimately died.

As in this case, at first, one met with many misconceptions as to what was really necessary and proper to do, and what was harmful and must be kept rigidly excluded. In fact, it was the old tale, the fight between truth and error, and the struggle which had to be before Truth and Right could get through the crowd of adversaries which opposed their progress, as the progress of every good thing always is opposed by Ignorance, Prejudice, Misconception and Self-Interest. They are always waiting to devour the new-born infant, as in this case. Misconceptions of Lister's teaching were met with on every hand. Wrong ideas and wrong meanings were at first read into his discoveries, and sometimes by men, who would under other circumstances have been the first to have hailed his miracles with delight.

I say miracles advisedly, for some of the things that could be done in perfect safety and with perfect success by his methods seemed and were completely miraculous to the boys of the old school. I need not bring in names, but a dozen or more of the best teachers and examiners come up in one's memory, who refused to the end to accept the new doctrine; and, strange to say, when they did try to adopt Listerian methods, instead of our seeing the brilliant and skilful operator, it seemed to be a man inept and bungling doing on compulsion what he felt to be a painful duty.

(To be continued.)

Guy's Hospital Chapel.

GUY'S Hospital Chapel Special Advent Services will be held in the Chapel on Friday evenings at 8.15 p.m., at which the following have kindly consented to give addresses:—

Dec. 5.—The Rev. H. Ridley, M.A., Vicar of All Saints, Notting Hill.

Dec. 12.—The Rev. A. W. Stacey, M.A., Priest-in-Charge of St. John's, Earlsfield.

Dec. 19.—The Rev. S. Groves, M.A., Vicar of St. Saviour's, Brockley.

Publications Received.

The Medical Review, The Northerner, The London Hospital Gazette, The Nursing Times, St. Bartholomew's Hospital Journal, The British Medical Journal, The University of Durham College of Medicine Gazette, The Dental Record, The Long Island Medical Journal, The Prescriber, The Indian Medical Record, The Isis, The Sphinx, The University College Hospital Magazine, The King's College Hospital Gazette, The Hospital Gazette, The St. George's Hospital Gazette.

Report to the Trustees of the R. L. St. J. Harmsworth Memorial Research Fund.

Description of Malignant Endocarditis and Proposals for its Investigation.

1. CLINICAL.

By Sir THOMAS HORDER, Bart., M.D.

IT may perhaps give a helpful impression of the main features of the disease if a brief account be given of an actual case. B. J., a young man of 28 years, comes under observation because of some general malaise following a short febrile illness which was thought to be "Influenza." The temperature incident upon the latter disease does not subside, but persists without any obvious reason. Careful examination reveals no signs of any pulmonary disease, and the only structural change present is a valvular defect known to have existed since an attack of rheumatic fever at the age of 18 years. This defect had caused no handicap hitherto and even now there are no signs of any disability of the heart. Prior to the "Influenza" the patient considered himself quite fit, although enquiry elicits the fact that this illness was not of sudden onset, but preceded by some sweating at night, a few "rheumatic" pains in the limbs, and a sense of unfitness. On one occasion, six weeks before the "Influenza," there had been a sudden sharp pain in the tip of one finger, lasting for an hour or two, and leaving a small patch of dusky-red discolouration, which disappeared entirely after a couple of days.

Critical examination shows that the patient's complexion is sallow and slightly anæmic, and that there is a slight but definite enlargement of the finger ends—the so-called "clubbing" of the fingers. There has been a little loss of weight. The mental state is sanguine.

Already, with this clinical picture, a suspicion of infective endocarditis is strongly aroused. The blood is cultivated, but no microbes are isolated from the specimen taken. A month later, however, two other negative cultures being made in the meantime, a streptococcus is isolated from the circulation, having characters that are recognised as being commonly met with in the disease. By this time the patient's condition has deteriorated a little; the temperature has persisted without a break, though there have been periods of a few days at a time when, perhaps as the result of some treatment, the height of the fever has been much less. There have been two or three recurrences of the sudden pains in the finger ends, and once a similar event occurred in one toe. On one occasion there was a little blood in the urine, clearing away in less than a week. A few minute hæmorrhages have been noted in the skin about the neck ("petechiæ"). The anæmia is rather more marked.

Despite all efforts at treatment—an open-air life, good food, tonic measures, two or three transfusions of blood from a suitable "donor" and a trial of several different types of sera and vaccines—there is a steady and progressive decline in the patient's condition. The disease, dating this from the time when the sweats and general malaise began—the "Influenza" being now regarded as merely an exacerbation of the toxic state dependent upon the infection—has by this time lasted some six months. Although the patient is still optimistic it is obvious, even to the uninitiated, that he is a stricken man. Examination of the heart shows no great change, but the signs of the old valvular mischief are more obvious and the heart muscle is now dilated.

Two months later the kidneys show signs of failure; albumin is present in the urine and there is slight dropsy present. The petechiæ have increased considerably in number. A good deal of flesh has been lost. Further blood cultures yield the same streptococcus on every occasion, and in increasing numbers. A state of drowsiness sets in, with other evidence of kidney insufficiency and the patient sinks into a state of uræmic coma and dies. The disease has lasted for nine months,

and its anticipated course and duration have been little, if at all, influenced by treatment.

* * * * * *

This may be regarded as one of the type cases of Infective Endocarditis; a young adult, whose heart becomes infected some years after the residual valvular damage caused by rheumatic fever. The disease less often follows upon valvular defects resulting from other causes. The influence of prolonged physical and nervous strain is a common factor in inducing the condition; hence the rise in incidence of the cases during the decade following the war.

No age is exempt, once the initial damage has been done to the inner lining of the heart. No person who has a valvular defect, however well "compensated" this may be, is immune from the disease. Given some unusual strain which lowers resistance—and quite often even without a recognisable determining factor of this kind—the presence of a weak spot in the heart and the existence of microbes in the body capable of colonising in this area of tissue susceptibility, are all the elements necessary for starting the insidious and progressive mischief.

The disease is, in effect, a form of chronic septicæmia associated with a septic focus in the wall of the heart. From this septic focus the blood stream is fed by repeated showers of microbes which are scattered into the remote vessels of various organs, the functions of which are slowly but inevitably undermined. In some cases, as in the case here related, it is the kidneys which bear the chief brunt of the attack. In others it is the brain, the lungs, or the heart itself.

2. PATHOLOGICAL.

By MERVYN H. GORDON, M.D.

1.—THE LESIONS.

MALIGNANT, ulcerative, or infective endocarditis is a condition in which one or more of the valves of the heart, and occasionally the adjacent internal surface of the heart wall, become the seat of inflammatory and degenerative changes, characterised by the appearance of ulcers and "wart-like" excrescences or "vegetations." As a result of this disease, in addition to the damage from impairment of the heart valves, lesions known as "infarcts" occur in other organs from the breaking off of vegetations from the valves and their conveyance by the blood-stream to the lungs, spleen, kidneys, brain, or other parts, where they may plug an artery or smaller vessel, thus cutting off the blood supply and causing the death of cell tissues in the area supplied by the blocked vessel. These mechanical changes are accompanied by a general poisoning of the patient (*e.g.*, fever, sweats, etc.) from the action of the infective agent producing the disease.

2.—CAUSATION.

From present knowledge it would seem that infective endocarditis is always brought about by some micro-organism that, having obtained access to the blood-stream, is carried thereby to the heart, where it settles down and proceeds to grow at the sites mentioned. According to this conception, the disease comprises two stages: (1) a blood infection or septicæmia and (2) an infection of the lining membrane (endocardium) of the heart where it covers the valves and the adjacent heart-wall, giving rise to what is known as endocarditis. In advanced cases both conditions—septicæmia and endocarditis—may be present at the same time, and the clinical diagnosis can be confirmed by cultivating some of the patient's blood in suitable media. In earlier cases, however, and in a proportion of the latter ones also, in spite of a very clear picture of the disease clinically—a picture removing all reasonable doubt as to the nature of the malady—repeated blood cultures are quite negative, and the causative organism can only be demonstrated by bacteriological examination of the heart lesions after death.

In contrast to specific infectious diseases such as plague, cholera, typhoid, diphtheria, etc., each of which is due to a single pathogenic group of bacteria *sui generis*, malignant endocarditis can be brought about by a number of different kinds of bacteria. On the other hand, an individual case of this disease does not yield more than a single strain of micro-organism to which it appears to remain constant throughout; the micro-organism recovered post-mortem being identical in all respects with that recovered by repeated blood-cultures during life. The bacteria commonly occurring in malignant endocarditis in this country are streptococci of the type present normally in the human mouth and intestine. The strepto-

cocci actually the most frequent are examples of the "salivarius" or mouth group, and after these come streptococci of the intestinal of "fæcalis" category. While cases of malignant endocarditis occur occasionally in which the causative organism is Pfeiffer's influenza bacillus, Friedlander's bacillus, the gonococcus, meningococcus, staphylococcus, anaerobic bacilli, etc., these cases are relatively rare.

3.—Experimental Reproduction of the Disease.

The pathogenic capacity of streptococci recovered from cases of malignant endocarditis appears to be very feeble as judged by experiments on mice. Nevertheless, when injected into rabbits in sufficient dose these micro-organisms are capable of reproducing the typical disease with all its characteristic lesions. A similar result may follow when representatives of the salivarius or fæcalis group isolated from the normal mouth or intestine are injected into rabbits in adequate doses; but this experiment is not always successful, even when large amounts of individual streptococci isolated from the normal alimentary tract are injected.

4.—Summary and Comments.

Summary.—In contrast with the uniform fatality of this disease once it has developed in the human subject, the micro-organisms causing malignant endocarditis appear to possess but comparatively feeble virulence, to judge from experiments on animals.

The commonest causative organisms appear to be streptococci normally present in the alimentary canal.

The disease can be reproduced experimentally in animals with these micro-organisms.

Comments.—(1) The very diversity of micro-organisms found capable of causing malignant endocarditis suggests that this condition is not so much a primary disease, as a sequel to previous disease, injury, or other depressing factor.

(2) The fact that the disease can be reproduced experimentally suggests that every effort should be made to solve problems of its etiology by this method, and also problems in relation to its treatment and prevention.

5.—Lines Suggested for Research.

1. *Further Investigation of the Specific Defence.*—Since malignant endocarditis appears to be largely due to a diminution in the patient's resistence to organisms of low virulence—especially to organisms of a kind present normally in the alimentary canal—attempts should be made to define the *degree* of the patient's specific resistance to the particular micro-organism infecting him, and to compare this with that of a normal man. In this way it may be possible to define the particular feature in the defence that has broken down.

Preliminary work along these lines has been proceeding for many years past on behalf of the Medical Research Council. It has been found that the blood of patients suffering from malignant endocarditis contains a very high yield of specific antibodies for the particular micro-organism infecting him. The specific antibodies investigated so far are the "opsonins," "agglutinins," and "complement-fixing" antibodies. These are the easiest to identify and measure; but there is no reason to suppose that they are the most important in the defence. It should be possible, however, by further experiment, to define the particular principle in the blood that is of chief importance in this relation.

[A point of practical importance in the diagnosis of malignant endocarditis has already emerged from these preliminary studies of agglutinin and complement fixing antibodies, since it has been found that the increase of these for the particular organism infecting the patient—and for no other—can be applied practically to identify the presence of this particular causative organism in the urine of the patient or elsewhere (*e.g.*, a tooth socket) when the blood culture is negative.]

2. *Problems for solution by experimental reproduction of the disease in animals.*—

(1) The influence of various "depressing agents" in promoting malignant endocarditis.

(2) The question as to why the disease should especially affect the valves in preference to other parts of the heart, or other organs.

(3) Observations on human cases of malignant endocarditis, as regards the particular factor (if any) in the specific defence that breaks down (see preceding section) can be checked.

(4) Questions of specific prevention and treatment can be threshed out, and the limits defined.

(5) The question as to whether by any other means a method can be arrived at for curing cases of malignant endocarditis.

The Discovery of the Obelisk.

Proceedings of the Southwark League for the Discovery of London.

THE Apothecaries of Addison who have been following the proceedings of the League with conspicuous bravery will remember that about a month ago we started out to find the Obelisk which was mentioned by Dickens in *David Copperfield*. Directed by a policeman who was basking in the sunshine of Blackfriars Bridge (which bridge the reader will remember impressed Mr. Eustace, "the classical tourist" in *Little Dorrit*, as being so much finer than the Rialto in Venice), we took a southerly course down Blackfriars Road and calling at the Rotunda (not a place of refreshment, happily — Ed.) and Christ Church, found ourselves at the old wooden cottages in Collingwood Street. Brook, whose affection for old ladies is well known, drew from them all they knew about the wooden

The Ring. E. G. SAMES.

houses in which they pass their blameless days. This information amounted to nothing and we continued our weary pilgrimage.

The Ring.

After a time we passed under a railway bridge. Then on the left hand side we noticed an octagonal building bearing a notice "The Ring." Clayson recited the sad story of this building in his characteristic way. Let me do my best to translate his story into simple English. "The Ring" of to-day, where boxing matches take place under the superintendence of Mrs. Dick Burge, was built by an eccentric Nonconformist minister named Rowland Hill in 1783. He became the first minister and was eventually buried beneath the pulpit. The chapel passed through many phases and finally closed its doors as a religious institution in 1881. At some subsequent period the remains of Hill were transferred to Christ Church, Westminster Bridge Road, where they rest to-day beneath the Lincoln Tower.

It is alleged that a friend asked Hill why he had built his temple with what was practically a circular interior, and the quaint man replied, "In order that the devil should not be able to hide in the corners." The building was reopened as a metal warehouse and afterwards became a Picture Palace. Then it became the home of the boxing fraternity. We gazed bewildered at the advertisements:

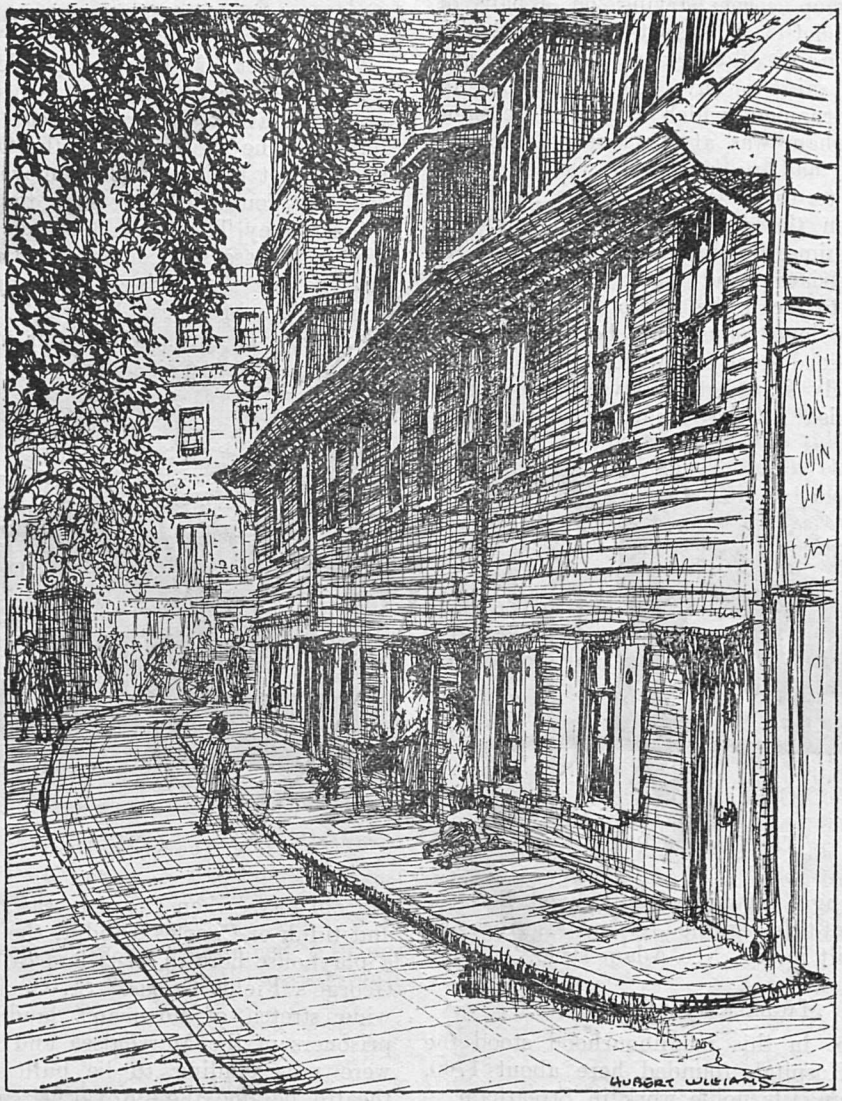
MIGHTY MIDGET (Of Mile End) v. BILLY BLUDGEON (Of Bermondsey)

MIKE MUSCLE (Of Maida Vale) v. DICK DREADNOUGHT (Of Deptford)

and moved, as it were, towards the Obelisk. O'Connor insisted on seeing the interior of the place where at least at one period the devil had been thwarted. In spite of the boxing ring which is not a ring, but a square, the building still looks like a place of worship. Perhaps it failed as a chapel because the sermons lacked point; to-day they are undoubtedly *striking* and direct. While we were standing within, an unfortunate incident occurred. The Manager entered and, going up to Clayson, greeted him with a cheery, "Glad you've come at last, Willy." Our dignified companion was standing no nonsense. Flushed in the face he announced that if familiarity must be he would prefer to be known by his real name, Ferdinand Buonaparte. The Manager, full of apologies, explained that he had been waiting anxiously all the afternoon for Mr. Whappam of Wallington, the champion heavy-weight bantam of Surrey, who is commonly known as "Willy." We were mistaken for "Willy's" retinue, Brook for the doctor, Cheeseman for the man good at holding stakes and O'Connor for his manager. I suppose I was regarded as the Chaplain—in readiness to preside at the obsequies. Our differences were quickly healed, and we emerged into Blackfriars Road.

"THE DOG AND POT."

Clayson was still a little unhappy, but he cheered up for a moment when Brook suddenly announced that he would introduce us to the "Dog and Pot." We imagined what was in the mind of our heavy-weight friend, but it never reached his lips. The "Dog and Pot" is not an ancient inn, but merely one of London's most interesting signs. We were standing outside the "Ring," with Union Street on our left and the New Cut (the home of the "Old Vic.") on our right. Looking across the road to the corner of Union Street our eyes caught sight of the golden dog drinking out of a golden pot over the premises of Mr. Cunningham, the ironmonger. No one knows how old it is, but it was a notable thing in the days of Dickens. Dickens, the "little fellow with a very poor white hat, little jacket and corduroy trousers," used to



HUBERT WILLIAMS.

Cottages in Collingwood Street.

look up at the sign when walking back from his work at Hungerford Stairs to the attic in Lant Street. Somewhere in the same vicinity the novelist used to buy boot laces on Saturday nights, and once at least he sat on a stool in a shop corner trying on a pair of ready-made boots. This spot is regarded with great affection by all Dickens enthusiasts, one of whom is said to have offered £2,000 for this golden ornament which adorns the corner. Mr. Cunningham was at the war and his representatives had no authority to allow the golden dog to cross the Atlantic. Not only has this been the resort of Dickensians, but the master himself tells us that he used to haunt Blackfriars Road when he had grown up in order to recall the bad old days.

After this long pause we began to walk down the broad road between houses which have obviously seen better days. Now Trade Unions flourish in the buildings, but a hundred years ago City merchants lived here in what one of the guide books describes as "houses built in the Neo-Adam style."

The Dog and Pot,

Magdalen Hospital.

Somewhere in this neighbourhood stood the Magdalen Hospital, founded here about 1760, and now doing its noble work in Streatham.

On the left hand side we came upon the West Southwark Reform Club, the members of which are said to have Radical leanings. O'Connor directed our attention to the top floor of the Club where we caught sight of a building which was obviously a chapel. He tried to make political capital out of this and to persuade us that his friends were the sons of piety. Clayson, who has definite views of a more crimson hue, frustrated this dishonest attempt by telling us that not so long ago the building was a Convent. It would be a seemly thing if something could be done to redeem this little shrine or to destroy it.

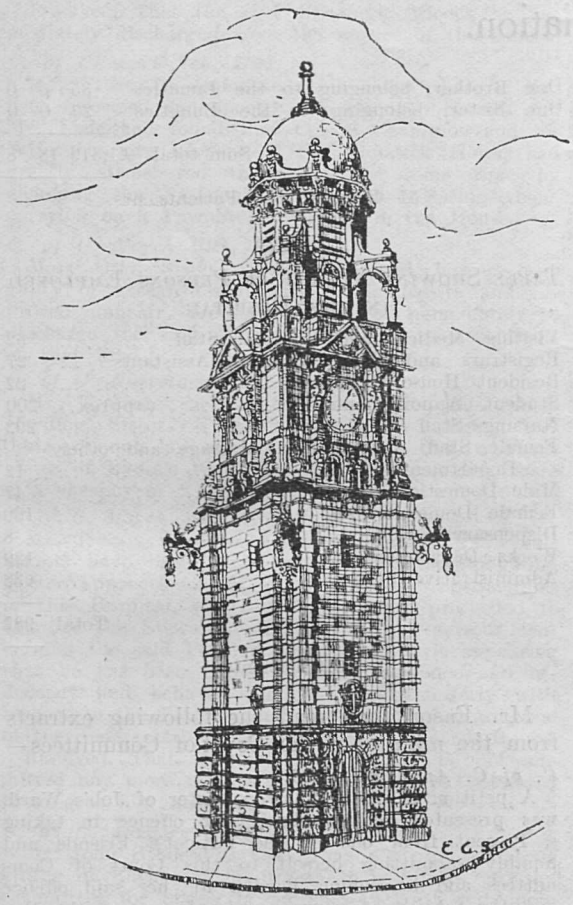
"The Surrey."

While most of us were pondering on the theme of politics and religion, Cheeseman, looking ahead at St. George's Circus, saw an erection which he claimed to be the Obelisk. Telling him not to interrupt we moved towards it, when we found it necessary to make a halt at the Surrey Theatre. Here was my opportunity to address the company for the first time since we left the bridge. "We are on historic ground, dear brothers," I began. "There stands the Surrey Theatre. Cast your minds back to the old days when Clayson was but a slim lad and think of Charles Dibdin, the poet, building a playhouse here in 1782 and calling it the St. George's Fields Circus. St. George's Fields, a wide stretch of no man's land used by the prisoners of the Marshalsea and King's Bench, were now tending to be built over and the theatre became the 'Royal Circus and Equestrian Philharmonic Academy.' Owing to the death of the ground landlord who was interested in the scheme, the management found itself in many difficulties. Great changes took place and Grimaldi was appointed to preside over the destinies of the house. His place was taken by Delpini, who staged a real stag hunt, but did not retrieve the fortunes of the place. Before the end of the eighteenth century the property

E. G. SAMES.

The Surrey Theatre.

passed to the West family entirely, to whom it belongs to-day. Then came the fire of 1805, when the whole place was consumed. It was rebuilt and reopened in 1806. Soon afterwards it became known as 'The Surrey.' In the nineteenth century it was the home of melodrama. When our fathers and Clayson, dear comrades, spoke of the 'Transpontine drama' they meant the lurid drama as provided at those theatres across the river, 'The Surrey' and 'The Victoria' in the New Cut. The famous George Conquest gave up his management here in 1901, and the theatre lost a prestige which it has never recovered."



The Obelisk? E. G. SAMES.

"Cheeseman leads the way. . . and announced that that was the Obelisk. I registered a flat contradiction."

"Shall we find the Obelisk?" whispered Brook, who allows nothing to interfere with tea time, and I answered "No, the end is not yet." Taking up my discourse where I was rudely interrupted, I reminded my friends that it was in the Surrey Theatre that Frederick Dorrit played a clarionet "as dirty as himself," and that here Fanny Dorrit used to dance. Poor Dickens knew this playhouse from the inside. Once he witnessed the opening of an unauthorised dramatised version of "Oliver Twist." The poverty of the thing made him so angry that he flung himself on the floor of his box and never rose till the play was over.

"Have you finished?" asked O'Connor with little of that charm which one expects from a Catholic Irishman, and I said I had. He and Cheeseman led the way to the centre of St. George's Circus and announced in triumph that that (pointing to a bizarre erection bearing the date of 1907) was the Obelisk.

Clayson and Brook entirely agreed with me when I registered a flat contradiction. To smooth matters over I laid the blame on the policeman. Cheeseman and O'Connor were almost convinced when I pointed out that David Copperfield did not exist in this part of the world as late as 1907. I regret to have to ask the Dispensers of Dorcas to wait for the story of the final conquest of the Obelisk.

T. P. S.

Papers by Guy's Men.

O. Gazer Morgan, M.A., M.Ch. A Series of Cases of Cyclitis examined with the Gulstrand Slit Lamp and Corneal Microscope.—*B.M.J.*, October 25th, 1924.

J. Gaymer Jones. Chronic Intussusception: With Reports on Previously Unpublished Cases.—*Brit. Jour. Surg.*, xii., 1924, p. 378.

A. H. Tubby, C.B., C.M.G., M.S. The Advance of Orthopædic Surgery.—*Clinical Journal*, liii., 1924, p. 529.

Change of Address.

Charles Spurrel, F.R.C.S., Fro Wen, Carmarthen.

H. Paxton Baylis, M.R.C.S., L.R.C.P., L.D.S., R.C.S., 8, Lower Sloane Street, S.W.1. 'Phone: Victoria 7721.

E. W. Power, L.D.S., R.C.S., 22, Oakdale Road, Streatham, S.W.16.

Jarvis Totton, L.M.S.S.A., 38, High Street, Redbourn, Herts.

Col. H. Hewetson, D.S.O., The Close, Overstrand, Near Cromer, Norfolk.

J. Gaymer-Jones, F.R.C.S., 6, St. Thomas's Street, S.E.1. 'Phone: Hop 2835.

The Annual Dinner of the Guy's Hospital Employees' Association.

ON November 14th over two hundred people of all sexes crowded into the Bridge House Hotel to attend the Annual Dinner of the Guy's Hospital Employee's Association. It was the most successful dinner that this enterprising Association has ever held, and if its members enjoyed themselves as much as their many guests, including a large number of the Hospital Staff, they had a very pleasant evening indeed. The size or even the existence of this Association is not as well known at Guy's as it should be, since it has for its *raison d'être* the excellent thought that men and women work best together if they also play together. A few bright spirits, not members of the Association, realising this, did their best to improve matters by sending a message to one of the guests that he was wanted urgently—the urgency being nothing less than a triumphal drive through the Borough streets, drawn by a long-haired bay and cheered by an enthusiastic populace.

The dinner was followed by a musical programme, between the items of which were interspersed some excellent speeches. It is impossible to reproduce them all, but extracts from some will be of general interest.

Mr. Eason, the President, in proposing the toast of "The Association," thought that it would be of interest to compare Guy's of today with Guy's of two hundred years ago. He read out the following lists:—

1725.

THE PAY-ROLL.

	£	s.	d.
Treasurer	00	0	0
Clerk	40	0	0
Steward	80	0	0
Chaplain	80	0	0
Two Physicians, £40 each	80	0	0
Two Surgeons, £40 each	80	0	0
Apothecary	80	0	0
Surgery Man	30	0	0
Apothecary's Two Servants	78	0	0
Butler, with his Horse	67	2	8
Cook, with her Servant	32	0	0
Porter	35	0	0
Beadle	30	0	0
Matron	50	0	0
Eleven Sisters, £25 each	275	0	0
Eight Nurses, £16 each	128	0	0
Twelve Watchmen, £10 8s. each... ...	124	16	0
One Brother, belonging to the Lunatics	35	0	0
One Sister, belonging to the Lunatics	25	0	0
Sum total	£1,349	18	8

51 Persons. 60 Patients.

1924.

TABLE SHOWING NUMBER OF PERSONS EMPLOYED IN THE HOSPITAL.

Visiting Medical and Surgical Staff	52
Registrars and Chief Clinical Assistants ...	27
Resident House Officers	22
Student Appointments ... ... (approx.)	200
Nursing Staff	292
Female Staff Assistants in Massage and other Departments	12
Male Domestic Staff	47
Female Domestic Staff	160
Dispensary Staff	8
Works Department	129
Administrative Staff	38
Total	987

616 Patients.

Mr. Eason then read the following extracts from the minutes of the Court of Committees—

C. of C. April 5th, 1726.

A petition of Jane Wharton, Sister of Job's Ward, was presented acknowledging her offence in taking a Present from one of the Patient's Friends and humbly submitting herself to this Court of Committees and beseeching Pardon for her said offence and the said Petition was read. Upon consideration of the said petition and submission and debating the matter thereof, it was resolved that the said Sister be severely reprimanded by Mr. Treasurer, but in compassion to her circumstances and in Consideration that the Orders have not been made publick This Court of Committees doth forbear to Order her expulsion at this time. The said Jane Wharton was called in and reprimanded accordingly.

C. of C. April 14th, 1726.

Mr. Treasurer reported that soon after the last Court of Committees he had received information that Jane Wharton the Sister of Job's Ward had embezzled some Oatmeal, Salt and Candles belonging to this House. And the said Sister having confessed the same he had suspended her from her said office and she has been since married and is departed from this Hospital.

C. of C. February 14th, 1728.

Mr. Treasurer reported that he had received information from the Steward that Elizabeth Adcock the Cook of this Hospital had greatly misbehaved herself by Wasting or Embezzling provisions and by

irregular and disorderly admitting strange people into her Lodging and that she had for 3 or 4 days now last withdrawn herself from the Service of the house.

Resolved, That the said Elizabeth Adcock be immediately discharged from the service of this House.

C. of C. April 7th, 1730.

Mr. Treasurer acquainted this Court that he had been informed and upon Examination by himself and Mr. Lade had found that Colwel Champion and his Wife who are keepers of the Lunatick House had greatly misbehaved themselves for some time by changing the Patients' Cloths and misusing them, carrying on a Pawnbroking Trade in the House.

C. of C. March 10th, 1730—31.

Mary Otty, Sister of Lydia's Ward, having been guilty of excessive drinking, was called in and reproved and Mr. Treasurer is desired immediately to discharge the said Mary Otty upon the next fault of that kind.

C. of C. November 12th, 1731.

Mr. Treasurer acquainted this Court that Rachel Harding, Sister of Luke's Ward, has resigned and desires to quit her office and that Mary Otty, who was Sister of Lydia's Ward, is lately dead, so that there is a vacancy of 2 Sisters in the House.

C. of C. March 2nd, 1731—2.

Mr. Treasurer informed the Court that great complaints have been made of the behaviour of John Potter, Apprentice to Mr. Cooper, one of the Surgeons of this Hospital, whereupon the Court proceeded to examine the Steward and several other persons concerning the said Potter's behaviour and it appearing that he has been guilty of great insolence and indecency and behaved himself very disorderly with respect to the Patients and also to the Steward, one of the Sisters and the keeper of the Lunatick House.

Resolved, That the said John Potter be not admitted any more into this Hospital and the Steward is to give him notice thereof.

C. of C. January 28th, 1734.

Mr. John Hibberdine having made a proposal about killing of Buggs in this House It is referred to the Committee for taking in patients to treat and agree with the said Hibberdine.

C. of C. July 17th, 1735.

Ordered that Twenty pounds be paid to John Hibberdine on account of his service in killing buggs in this Hospital.

C. of C. May 24th, 1739.

Mr. Hayward acquainting this Court that the Patients in this Hospital were annoyed in a very grievous manner with Buggs. Resolved, That it be referred to the Treasurer to take such method as He shall think most effective for clearing the Men's wards thereof.

C. of C. October 27th, 1744.

Mr. Treasurer acquainting this Court That such patients in this Hospital as had occasion had made use of the Hot Bath belonging to St. Thomas's Hospital for a considerable one. Ordered that it be referred to Mr. Treasurer to settle with the General Committee or Treasurer of St. Thomas's Hospital what allowance shall be made to the said Hospital in respect thereof.

From a Memorandum of the Character and behaviour of the officers and servants of the Hospital.

Woodhouse, the porter, is a noisy, expensive, dissolute encroaching fellow—needs much to be carefully watched. Question of his affair with the Sister of Lydia's Ward? Woodhouse's wife is an exceedingly jealous woman.

Voughton, the beadle, is a very sober, diligent, quiet, modest man, and much deserves favour and encouragement.

In his response to the toast, "Guy's Employees' Association," proposed by the President, Mr. E. Williamson said that it was his privilege that night to reply to the toast of the Guy's Hospital Employees' Association, which had been started in pre-war days, lapsed during the war, and had been revived in 1919.

They were very glad to have with them that night an old Guy's employee who had carried the Guy's tradition to another great hospital, St. Bart.'s, so that to-day there were two leading London hospitals with such an Association.

There were, however, 203 employees at this hospital who were eligible for membership, of whom 106 were members. They were anxious that the other 97 should join them. The whole idea of the Employees' Association was the better acquaintance of Hospital Servants one with the other, with the consequent smooth running of the Institution and the ultimate benefit of those persons who were seeking the treatment provided.

The Executive Committee thought that all employees would like to help with the Bi-Centenary Appeal and suggested that they should endeavour to raise £100. The idea had been enthusiastically taken up, and as a result of the united efforts of all employees £822 16s. had been collected by Wednesday morning. He need hardly add that the collection would be carried on until January 6th.

During the year a Lawn Tennis Tournament had been held, and the winner, Mr. Hill, became the first holder of the "Fawcett" Challenge Cup, with Mr. Butler runner up.

He would like here to express on behalf of the Association their sincere thanks to Dr. Fawcett for so generously presenting the beautiful Cup which was on view that night. The Committee hoped that with the stimulus of the cup many more members would take part in next year's tournament. He would like to thank the Clubs' Union for permitting the use of the tennis courts at Honor Oak Park, and

for the privilege of using the Pavy Gymnasium.

They desired also to thank Professor Stokes, Professor Pembrey and Dr. Mutch for so kindly permitting the Association to use their respective Departments during the year. They would have realised from the foregoing that the spirit of good-will permeated the whole Hospital.

Finally, he would call the attention of all employees to two Lectures, the first, which Sir Alfred Fripp had kindly consented to give, entitled "Forty Years at Guy's," to be held on December 2nd, and the second, by Mr. Evans, entitled "Early Man in Europe," on January 15th, in the Physiological Theatre. To both lectures a hearty invitation was extended to all Guy's people. He would not detain them longer, but, on behalf of the Association expressed their thanks to the President for proposing the toast, and to the company for the kind manner in which they had received it.

Other toasts were:—"The King and Royal Family," proposed by the President; "Guy's Hospital and Schools," proposed by Dr. J. Fawcett, response by Mr. A. R. Thompson (premier *raconteur* of the evening); "The Visitors," proposed by Sir Alfred Fripp, K.C.V.O., response by Dr. A. Allport; "The President," proposed by Mr. W. J. Curry.

Correspondence.

Fison Memorial Fund.

DEAR MR. EDITOR,—At the present date, the Fund has reached a total of £515 10s. 6d., £499 10s. 6d. having been subscribed, and £16 representing Deposit Interest on that account.

Although the Fison Memorial Fund Committee recognises that the response to the appeal for subscriptions has been very gratifying, it is felt that there must still be many who have not yet subscribed to the Fund and would gladly do so.

It has been decided to fix the honorarium to the Lecturer at 20 guineas, and, as the income of the Fund will not exceed £23 per annum, the margin left after the payment of the honorarium will be too small to cover the necessary expenses of advertising, etc. Additional subscriptions will, therefore, prove very helpful and will be gladly received.

To date, the following subscriptions have been received, and the accounts have been audited by Messrs. Kemp, Chatteris, Nichols & Co., and certified correct:

	£	s.	d.
Contributions from Students, per N. H. Allen, Esq.	12	15	6
T. F. Althaus, Esq.	1	1	0
Anonymous	0	10	0
Contributions from Students, per M. F. Awdry, Esq.	3	7	6
P. C. Bardsley, Esq.	1	1	0
Mr. & Mrs. H. Beveridge	1	1	0
G. R. Bland, Esq.	1	1	0
L. Bromley, Esq., M.Ch.	10	10	0
Prof. T. H. Bryce	5	5	0
Prof. W. Bulloch	2	2	0
Mr. & Mrs. Russell Burder	1	1	0
The Rt. Hon. Lord Richard Cavendish	5	0	0
Dr. H. C. Cameron	10	0	0
Hugh Candy, Esq.	1	1	0
S. N. Carvalho, Esq.	1	1	0
Dr. J. J. Conybeare	2	2	0
Frank Cook, Esq., F.R.C.S.	2	2	0
Dr. & Mrs. Courtney	1	1	0
The Rev. D. H. S. Cranage	2	2	0
The Crewe Mechanics Institute	1	1	0
C. W. Cromwell, Esq.	1	1	0
S. H. Croucher, Esq.	1	1	0
The Rev. A. L. Cortie	2	2	0
Sir Maurice Craig	3	3	0
R. Davies-Colley, Esq., M.Ch.	10	10	0
E. B. Dowsett, Esq., L.D.S.	10	10	0
Contributions from Students, per D. E. Dunnill, Esq.	5	7	6
Dr. F. Durham	1	1	0
Dr. Bernard Dyer	2	2	0
Miss M. M. Eve	1	1	0
Exmouth Lectures Committee	1	1	0
Prof. J. W. H. Eyre	1	1	0
Dr. J. Fawcett	10	10	0
Mrs. Finch	2	0	0
Miss J. Fison and A. F. Fison, Esq.	5	0	0
H. L. Fison, Esq.	5	5	0
Sir Gregory Foster	1	0	0
L. C. Fox, Esq., M.A.	1	1	0
Prof. P. F. Frankland	1	1	0
Dr. Herbert French	10	10	0
Sir Alfred Fripp	10	10	0
E. C. Garbutt, Esq.	1	1	0
Prof. C. S. Gibson	10	0	0
The Gilchrist Educational Trust	100	0	0
E. A. Godfrey, Esq.	1	0	0
Dr. & Mrs. Albert Green	2	2	0
Walter Greenwood, Esq.	1	1	0
The Guildford Lectures	3	3	0
Miss Marion Hall	0	10	0
Prof. & Mrs. W. D. Halliburton	1	1	0
Sir Hildebrand Harmsworth	10	10	0
Heywood Gilchrist Committee	2	2	0
Dr. Alex. Hill	2	2	0
M. F. Hopson, Esq., L.D.S.	10	10	0
Contributions from Students, per L. G. Housden, Esq.	8	19	0
Hove University Extension Centre	6	2	6
E. C. Hughes, Esq., M.Ch.	10	10	0
Prof. T. B. Johnston	10	10	0

	£	s.	d.
Contributions from Students, per K. S. Keele, Esq.	5	0	0
Sir J. Scott Keltie	1	1	0
C. W. Kimmins, Esq.	1	1	0
Dr. P. P. Laidlaw	10	0	0
T. B. Layton, Esq.	10	10	0
Walter Leaf, Esq.	10	0	0
A. Mansbridge, Esq.	0	10	0
C. F. Markes, Esq.	1	1	0
Dr. Geoffrey Marshall	5	5	0
J. A. N. Marriott, Esq.	1	0	0
Sir H. A. Miers	2	0	0
W. M. Mollison, Esq., M.Ch.	10	10	0
Miss Nicholson	1	1	0
Dr. G. W. Nicholson	10	10	0
A. W. Ormond, Esq., F.R.C.S.	3	3	0
The Otley Mechanics Institute	2	2	0
Mrs. Owen.	1	0	0
Miss G. Owen	0	5	0
J. B. Parfitt, Esq., L.D.S.	5	0	0
J. Lewin Payne, Esq., L.D.S.	10	10	0
Miss E. Penrose	1	1	0
Prof. M. S. Pembrey	5	0	0
Mrs. Henry Perrin	1	1	0
Sir E. Cooper Perry	1	1	0
Dr. E. P. Poulton	10	0	0
R. P. Rowlands, Esq., M.S.	10	10	0
The St. Austell Lectures	2	2	0
Sir M. E. Sadler	1	0	0
Sandy Lodge Golf Club	1	1	0
Herbert Savory, Esq.	2	2	0
W. Smart, Esq.	1	1	0
Roger T. Smith, Esq.	5	5	0
L. Muir Smith, Esq.	1	1	0
Contributions from Students	1	12	6
Miss Margaret Tuke	1	1	0
Prof. H. M. Turnbull	1	1	0
Contributions from Students, per G. G. T. Tregarthen, Esq.	7	0	0
The Thomas Wall Trust	5	5	0
Mrs. E. C. Williamson	5	0	0
Miss I. M. K. Wood	1	1	0
The Workers' Educational Association	5	5	0
Prof. W. Wright	5	5	0

I am,

Yours faithfully,

T. B JOHNSTON,

Hon. Secretary, Fison Memorial Fund Committee.

Medical School,
Guy's Hospital,
London Bridge, S.E.1.
November 5th, 1924.

United Hospitals Winter Sports Club.

SIR,—I trust that you will assist me once again to bring The United Hospitals Winter Sports Club to the notice of your readers.

The Club was founded to obtain advantageous terms at Winter Sport resorts and to encourage these Sports amongst Past and Present Students of all recognised medical schools in the United Kingdom.

This year the Lord Dawson Cup for Ski-ing will be competed for early in January at Griesalp, Bernese Oberland, but for those members who prefer the Engadine a second hotel (Hotel Waldhaus, Sils-Maria) has undertaken to assist our members in many ways.

Full particulars can be obtained from the managers of these two hotels.—Yours sincerely,

J. DUNCAN LYLE, *Hon. Sec.*

Maidenhead.
November 14th, 1924.

Reviews.

Medicine.

Clinical Methods. A Guide to the Practical Study of Medicine. By ROBERT HUTCHINSON, M.D. Edin., F.R.C.P. Lond., Physician to the London Hospital, etc., and HARRY RAINY, M.D., F.R.C.P. Edin., F.R.S.E., formerly Physician to the Royal Infirmary, Edinburgh. Foolscap, 8vo., 688 pages, with 17 Colour Plates and 150 Figures in the text. Eighth Edition Revised. Published by Messrs. Cassell & Company. *Price 12s. 6d. net.*

OF the many additions made in the 8th edition of this medical classic, the chief are sections on the Fractional Test-Meal, Van den Burgh's Test, the Estimation of Sugar and of Urea in the Blood, and the Urea-Concentration Test. The description of Cardiographic methods has, with the aid of Dr. John Parkinson, been entirely re-written. It is also re-illustrated and there are many other fresh illustrations in this new edition which, it will be gathered, has been very thoroughly revised.

Surgery.

Aids to Surgery. by CUNNING AND JOLL. Fifth Edition. Published by Messrs. Baillière, Tindall & Cox. *Price 4s. 6d. net.*

THIS is one of the most popular of the series of "Aids" and is largely used as a pocket book, for reference in the Out-Patients' Department. It has never been intended to be used as a text-book and must never be used as such; but as a handy means of refreshing one's memory, when a larger book is not at hand or just before an examination, it is excellent and, having been brought up-to-date in the present edition, is recommended.

Sport.

Rugby.

Guy's v. Coventry.

A GREAT contrast to the previous Saturday, November 8th was a dry and perfect afternoon for football. A splendid crowd collected since Coventry had done well in previous matches and there were all the portents in favour of a great game at Honor Oak Park, and this took place. Yet one word of criticism would I offer. There are defenders among our team who do not defend. They never fall on the ball, and they seldom tackle as we expect a Guy's man to tackle. To place the nether portion of one's anatomy in the way and hope to stoop for the leather successfully is weakness and folly.

Coventry were at full strength; a very well balanced team too, including several new faces to Honor Oak Park. We ourselves were not so fortunate in the way of "full strength," but those who appeared for us started off in excellent fettle and the forwards gave a good account of themselves, though up against a heavier pack. There was much up and down play with little benefit to either side. There was also some punting which sought length and did not find touch. The game settled about midfield when Preen cut out a beautiful opening for Van Schalkwijk who handed on for Graham-Davies to get right behind the posts. He converted the try himself. From now till half time Coventry played very hard. Once or twice, our defence was heavily tried, Fellowes-Smith and Graham-Davies aiding Mostert to keep the line intact, though a penalty kick awarded Coventry in a favourable position brought them 3 points.

Soon after the second half of the game was commenced Coventry were again awarded a "sitter" in the shape of a penalty goal and it must be confessed that this losing of the lead seemed to take the heart out of our men. The forwards still plugged away. Tregarthen had had to leave the field for a while owing to injury, but he gamely kept going to the end. The halves were handicapped by the ball coming slowly from the scrums. Graham-Davies and Fellowes-Smith were always a very dangerous and forceful wing, but the men of Coventry tackled strongly, and watched Preen had no rope. Just before time our line was crossed by L. Bowkett, quite a good try. The conversion was by J. M. Wale and therefore the final score stood at Coventry 3 goals (2 penalties) 11 points; Guy's 1 goal 5 points. This is the first time that Coventry have been victorious on the Hospital ground.

C. L. Steyn was on the touch line which looks promising.

P. D. B. Spence had to nurse a strained wrist.

B. G. Scholefield and N. M. Holloway were both resting.

Guy's Team.—G. R. Mostert; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, H. W. Leslie; V. R. Preen, G. Clarke; J. Durr, G. G. Cameron, J. W. Schabort, W. H. Myburgh, E. W. Hutchinson, G. G. Tregarthen, J. Radford, G. King-Turner.

United Hospitals Hare & Hounds.

ON Wednesday, November 5th, at West Wickham, the Hospitals defeated University College in a 5 miles match. Neither side was at full strength, but a close race resulted in the Hospitals winning by 5 points, on the Varsity system of scoring.

Mr. A. R. Thompson and Mr. W. F. Payne very kindly judged the race and Dr. H. A. Munro, who had missed his train, arrived later and was present at tea.

1. M. E. M. Jago (Guy's), 35 mins. 8 secs.
2. W. W. Darley (Bart.'s), 35 mins. 33 secs.
3. —. Cookson (U.C.), 35 mins. 48 secs.
4. W. L. Scott (U.C.), 36 mins. 43 secs.
5. H. N. Walker (Bart.'s), 37 mins. 6 secs.
6. E. R. Andrews (U.C.), 37 mins. 32 secs.
7. —. Storey (U.C.), 38 mins. 5 secs.
8. T. Calhaem (Guy's), 38 mins. 19 secs.
9. C. S. Wise (Bart.'s), 38 mins. 23 secs.
10. J. H. Chitty (Guy's), 38 mins. 31 secs.
11. O. H. Bellerby (Bart.'s), 38 mins. 35 secs.
12. —. Packman (U.C.), 40 mins.
13. M. D. Young (Bart.'s), 41 mins. 10 secs.
14. —. Allen (U.C.), 41 mins. 13 secs.
15. —. Stewart (Guy's), 41 mins. 41 secs.
16. —. Bett (U.C.), 41 mins. 53 secs.

J. G. Weston (Guy's), Kendall (U.C.), and W. R. Spicer (Guy's), also run.

1. U.H.H. & H.—1, 2, 5, 8 and 9=25 points.
2. U.C.—3, 4, 6, 7 and 10=30 points.

Guy's Hospital Golfing Society.

On November 10th, 1924, the team journeyed to Broxbourne to play the Broxbourne Golf Club. The result was a win for the Hospital by 7 matches to 4.

SINGLES.

Broxbourne.		*Guy's.*	
L. A. Speakman	1	J. L. Glover	0
H. M. Creasy	0	E. J. Pye-Smith ...	1
J. Balfour	0	D. G. Bown	0
A. R. Bartlett	1	G. W. Gathergood ...	0
Dr. A. Farson	0	L. W. Cann	1
S. V. Douglas Jones ...	0	J. A. Anderson	0
Capt. Gambier Parry	0	J. A. Vernon	1
N. H. Hole	1	J. P. Evans...	0
Dr. A. Cobbledick ...	0	W. G. Porter	1
Dr. W. H. Sturge ...	0	E. J. Buxton	0
	3		4

FOURSOMES.

Speakman & Creasy ...	0	Glover & Bown	0
Bartlett & Dr. Farson	1	Pye-Smith & Vernon	0
Capt. Parry & Hole ...	0	Cann & Gathergood ...	1
Drs. Carson & Cobbledick	0	Anderson & Evans ...	1
Dr. Sturge & Yeatman	0	Porter & Buxton ...	1
	1		3

MONTHLY MEDAL.

September ...	Winner J. P. Evans ...	5 down.
October	" J. L. Glover ...	5 down.

The competition for the Red Cross Trophy was held on Wednesday, November 5th, at Chislehurst. Over a dozen men entered notwithstanding the unfavourable weather. The winner was J. L. Glover, with a score of 6 down on bogey.

Hockey.

Guy's Hospital v. R.N. and R.M., Chathnm.

THIS match, which is one of the most popular fixtures on the list, took place on October 29th at Chatham. The Hospital side was not up to full strength, being without W. S. Hunt, L. J. Barford and R. E. Smith.

Guy's won the toss and started up-wind, and, with Schollum setting the pace, a goal was soon scored, which was followed by two more before the Navy replied with a hard shot from the middle of the circle, as a finish to an attack from the right wing.

After half time the home side rallied and Guy's were hard put to save several shots at goal. The Navy added two more goals to their score before Guy's were able to retaliate with three more goals, which made the final score 8—3.

Schollum's return to the side put new life into the forwards and he consistently worried our oppenents' defence. Awdry, although at times out of place, played a brilliant game, and combined well with Grant, who shows distinct promise, but must clear harder to his forwards instead of dribbling. Stevens, in goal, made a good substitute for Smith. The halves all played well against a fast forward line, Kempe in particular rendering the backs assistance when necessary. Catchpole was most successful with five goals and showed his usual sound knowledge of the game. Cautley shot three goals and played a sound game, although occasionally out of place. Swiss and Curtis were both good and got through some excellent work.

Guy's Team.—E. N. Stevens, M. F. Awdry, E. C. Grant, C. N. Howitt, A. C. Kempe, G. R. Ford, A. H. Curtis, J. W. Schollum, R. L. Cautley, L. Catchpole, R. G. Swiss.

Guy's Hospital 1st XI. v. Wallington 1st XI.

THIS match was played at Beddington Park on Saturday, the 1st November, and resulted in a win for Wallington by 6 goals to 1.

Guy's were severely handicapped by the absence of the right half, while the game was played in pouring rain, which made passing and place-keeping a matter of extreme difficulty. The majority of our oppenents' attacks came from their left wing, and despite Kempe's efforts to be in more than one place at the same time, Awdry was often left with the impossible proposition of coping with three forwards at once. The game on the whole was fairly even, and their scores were the results of clean "breaks-away."

Curtis, who played well, scored our only goal with a magnificent forehand drive, which completely defeated their goal keeper. Lloyd at half and Grant at back kept our opponents' right wing well in check, while Barford was unaffected by the climatic conditions and played extremely well on the left. Wimbush made a welcome re-appearance in the side and played a very sound game.

Guy's Team.—E. N. Stevens, M. F. Awdry, E. C. Grant, A. C. Kempe, D. W. Lloyd, A. H. Curtis, H. E. Terry, H. G. Wimbush, L. Catchpole, L. J. Barford.

Owing to the resignation of the Vice-Captain, J. G. Kingsbury, an Extra-ordinary Meeting of the Hockey Club was held on Tuesday, October 28th at 1.30 p.m. in the Physiological Theatre, and G. R. Ford was unanimously elected Vice-Captain.

The President of the Hockey Club, Mr. F. J. Steward, M.S., was present and very kindly took the Chair.

Hospital Information, etc.

Guy's Hospital Christian Union.

THE opening meeting of the session, mainly for freshmen, was held in the College Smoking Room on October 30th, when the Rev. Herbert Gray, D.D., of Crouch Hill Presbyterian Church, gave an address on "Does a man need Religion?"

After tea, the Chairman (Mr. J. Lewin Payne), welcomed the freshmen, and introduced Dr. Gray, who is well known to those of us who have attended conferences of the Student Christian Movement at Swanwick and elsewhere.

The speaker told us of man's need for a moral standard to which he must be committed, for men without a standard of life became mere wobblers.

He showed us how Jesus Christ set a standard which was universally recognised to be the ideal, and how the extra stimulus and reinforcement of will needed to attain such a high standard could be found in the Christian religion.

He then turned to the statement frequently made by medical students that they have not enough time for religion, and told us that, busy man as he was, he found he had not time to be without religion, and he made a plea for closer association between Medicine and the Church. The really great physician, he said, was concerned with mind as well as body, and few doctors could give the necessary spiritual stimulus to their patients. Men without religion might attain a considerable degree of material advancement, but if they had failed to cultivate their aesthetic and spiritual sides they would feel that something was missing and would find they had not attained complete happiness. The Christian religion offered a way of escape from narrow, materialistic and selfish ideas, and opened up a world of glory, life, and power.

Dr. Gray showed a keen sympathy with the young man's point of view and his difficulties, and put his experience of life before us in a most inspiring and helpful way.

Mr. Payne spoke of the danger of letting our views get narrowed down to the materialistic, and of not appreciating religion. The Chaplain (Rev. A. G. Harris), and Mr. Farrar also spoke.

The Student President (Mr. E. H. Roche), spoke of the coming activities of the Christian Union and of the Study Circle, which meets every Tuesday at 5 p.m. in the Chaplain's Room, and the meeting closed with hearty votes of thanks to Dr. Gray and Mr. Payne.

Guy's Hospital Musical Society.

THIS Society is holding its Annual Concert in the Chapter House, St. Thomas's Street, on Wednesday, December 3rd, at 8 p.m. A full orchestra and chorus will be performing and the programme includes:—

1. Overture to the Magic Flute.—*Mozart.*
2. Peer Gynt Suite.—*Grieg.*
3. Violin Concerto.—*Max Bruch.*
   Solo Violin, W. Primrose.
   The Orchestra.
4. Cantata, The Banner of St. George.—*Elgar.*
   The Chorus accompanied by the Orchestra.
5. English Folk Songs.—*Arranged by Vaughan Williams.*
   The Chorus.

It is hoped that all members of the Hospital will support the Society by buying tickets and by their presence on the night.

Tickets.—7/6, 5/9, 3/6 (reserved), 2/4 (unreserved), To be obtained from the Matron's Office, Wills Librarian, the Nurses' Home and Officers and Members of the Society.

The final rehearsal is to be held in the same place on Monday, December 1st, at 8 p.m., when admission will be by ticket, price 1/-.

Both sections of the Society under the genial and excellent conductorship of Mr. A. Y. Templeman, have been in active preparation for the concert for some considerable time, and we all feel sure that the Hospital Staff, Nurses and Students will display again the keenness, which marked the occasion of our concert last February, when they were present in such large numbers.

Guy's Hospital Employees' Association.

THE result of the forecast held in connection with the Bicentenary Appeal was as follows:—The prize was awarded to Mr. Larcombe of the Front Lodge for making a forecast of £825 14s. The actual amount collected by the Employees was £822 16s.

The draw for a set of carvers took place in the Pathological Theatre on Thursday, November 13th, and ticket number 182 won the prize. This was held by Mr. S. Caspar of the Dental School.

A lecture will be given by Sir Alfred Fripp in the Physiological Theatre on Tuesday, December 2nd at 5.15 p.m. on "Forty years at Guy's."

A cordial invitation is extended to everybody who would like to attend and it is hoped a large number will avail themselves of the opportunity of hearing this lecture.

Pass List.

Conjoint Board.

Final Examination.

October, 1924.

Medicine.

*J. Gray.
*F. W. Schofield.
*L. J. Barford.
*W. H. Bradfield.
*C. H. C. Toussaint.
*L. E. Owen.
*D. F. Durward.
*P. C. Bennison.
*W. G. Sears.
*J. E. Piercy.
*R. F. Smith.
*A. Canard.
*H. E. Blake.
E. Jones.
J. N. D. O'Rafferty.
D. C. Drake.
M. M. Baird.
J. R. B. Hern.
T. G. Tresidder.
*D. A. Skan.
*F. H. K. Knight.
*R. M. Jones.
*A. C. Hampson.
*E. H. J. Berry.
*J. H. Broadhead.
B. Kornblum.
*L. F. Beccle.
*F. Marsh.
*H. K. Williams.
*N. F. C. Burgess.
*S. Berman.
G. W. Murray.
R. A. Norman.
G. R. Ford.

Surgery.

*F. W. Schofield.
*L. J. Barford.
*D. F. Durward.
*W. G. Sears.
*D. A. Skan.
*W. H. Bradfield.
D. F. Johnstone.
*C. H. C. Toussaint.
F. M. Newnham.
T. A. Shaw.
M. E. M. Jago.
M. Bannounah.
*R. R. Mackenzie.
C. L. Worthington.
*W. F. Roper.
*D. Davies.
*A. A. Dalby.
*D. S. Huskisson.
*H. H. Steadman.
*L. F. Davies.
*S. F. Durrans.
*E. I. Liberman.
C. F. Morrison.
I. P. Spurrell.
L. R. Jones.
J. S. Jacobz.
R. G. Nethery.
F. C. Miller.
V. G. Fisher.
P. G. Trafford.
R. A. M. Dyke.
*F. A. Wilson.
C. F. Wylde.
R. N. Brandwood.
F. R. Dingle.
*S. Cieman.
*W. G. Roberts.

Midwifery.

H. M. H. Ashwin.
J. G. S. Thomas.
J. W. Schollum.
J. N. D. O'Rafferty.
D. C. Drake.
M. M. Baird.
J. R. B. Hern.
D. M. Lang.
A. C. Lysaght.
*H. Maclachlan.
E. C. Warner.
*F. A. Wilson.
J. A. A. Mekelburg.
C. F. Wylde.
R. N. Brandwood.
I. C. P. Beauchamp.
A. E. Hill.
H. Kessel.
H. G. Wimbush.
T. I. Williams.
C. P. Blacker.
W. B. Norcott.
H. E. Lewis.
W. S. Whimster.
G. T. Hankey.
H. G. Davies.

*Have now completed the examination.

Birth.

HERBERT.—On the 17th October, 1924, at a Nursing Home in London, Katherine (née Blenkain), the wife of G. A. Herbert, a son (stillborn).

Marriage.

KNIGHT—JONES.—On November 12th, 1924, at Rhyddings Park Church, Swansea, Frederick Herbert Kingston, son of the late Frederick Knight, M.D., and of Mrs. Knight, of "Cothelstone," Sketby, Swansea, to Gwyneth, daughter of the late Rowland Jones and of Mrs. Jones, of 33, Hawthorne Avenue, Swansea.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *December 6th, 1924.* *Number 950*

PASSIM

"FROM him that hath shall be taken away and from him that hath not shall be extracted promises and I.O.U.'s."

That may not be an exact quotation, in fact, on looking at it again, we think it is very unlikely to be a quotation at all, but it expresses exactly the Pre-Christmas spirit. Christmas games are varied and range from postman's knock to hockey on the ice, but in the Pre-Christmas period there is a monotony of ideas, and the one universal game is that of "Beggar your Neighbour." To lucky people with unlimited incomes, like the Residents, this season brings no inconveniences and the long daily queue of beggars on behalf of the Choral Society, the Landon Tea Fund, the Ward Christmas Fund, the various "gratuities" funds, the Court Room Dances Fund, the "Maid of the Mill" Fund, and the hundred and one other funds, are met with a smile and the rustle of bank-notes. But to some of the poorer members of the Hospital the time is one of anxiety and sacrifice—the sacrifice of old friends, such as microscopes and spare portions of clothing. To these the sight of an approaching beggar, bearing that open, friendly look of long-lost brotherhood, so distinctive of his kind, is as a slice of bran cake to a diabetic and induces either flaccid paralysis or instant flight. To such a frame of mind are these poor people reduced that they see a beggar where no beggar exists and turn from a harmless acquaintance as from a noisome pestilence. We ourselves, with all our sang-froid and clean limbs and everything made just such an error the other day on visiting the College worker. We only wished him to expound some knotty point in the life history of the "mahogany flat," and the laws governing its migration, and had hardly begun to explain our wants when he looked round from his books with a sigh of exhaustion and said, "Oh, leave me alone, I beg of you."

We were down the steps and out in Maze Pond before we had time to realise that he only spoke in metaphor. The word "beg" set off an uncontrollable reflex, and, as this reflex has of late been fired a large number of times daily, we have now decided to counteract it. In war, the best method of defence is attack—or so it is said, though to be sure it sounds a trifle stupid—and the same principle holds good in begging. Get in first and demand the half-crown before the enemy has extorted the ten-shilling note and he will take to his heels without mentioning his particular "fund." That is our newly-conceived plan of defence and its basis or "fund" is the "Landon Tea Fund."

We have no intention of stating what is the "Landon Tea Fund" nor of describing the Landon Tea. Most of you have seen it, not once but many times, and others, who have been unable to fight their way into the Out-Patients' Department on Christmas Day, have

heard it. It is the noisiest "tea" in the world and is still more unique by being quite tea-less. It is really more in the nature of a "Landon lemonade, oranges, paper-hats, and crackers" than a "Landon tea," and there are two Christmas Trees. The official number of guests is six hundred and fifty, but nearly fifty more usually squeeze in, not counting policemen, and they take their "tea" by the simple process of making as much noise as possible and refusing to be kept in order. Order is a most disagreeable thing to be kept in and the policemen, who are the custodians of law and order, forget all about it and blow their whistles and shout "Hi, you!" and make as much noise as anybody. But the really nice part of the "Tea" is the looking forward to what is coming next, and the things that get most looked-forward-to are the Christmas trees, because they come last of all. What an unforgettable tragedy it would be if those trees did not come up to expectations! If there were not enough dolls to go round or the clockwork toys gave out before the supply of guests! It is an awful thought to take about with you, but need not rob you of your hard-earned rest. Such a contingency is beyond the realms of possibility. The supply cannot fail; it never has. And why? Because when you have read this you just have to go out—you can't help it—to buy dolls and clockwork toys and games and golliwogs, and, if you cannot go out, supposing you have no feet, or have rheumatism or gout, you just send some money instead to Sister Out-Patients, and she writes and says "thank you," and tells you that whatever you sent was beautiful, and then you go about trying to sing for the rest of the week, as though the success of the "tea" were entirely due to you. And in a way it is—to you and one or two others.

All that was meant to be in self-defence against beggars, but it has come out wrong. Self-defence against begging is to beg, but this is not begging. It is doing the day's kind action by reminding you of just one small way, in which to make yourself able to enjoy Christmas. And such a very little is wanted. Only three-hundred and fifty dolls altogether. Why you'll be quarrelling as to who said he would send them first. And as for it being a "Fund," it is the greatest "Fund" of unalloyed joy that the Hospital possesses. Keep that fund overflowing, make Sister Out-Patients acknowledge letters and parcels all day long, and if you can't come to the "Tea" itself, listen-in on your wireless set between the hours of one and four and you'll hear the party jamming all the other wave-lengths south of Birmingham.

▭

From begging we will turn to something far more Christmassy, a something graceful and airy. We will turn to dancing. In the Supplement to the "Nursing Guide" under the heading "School of Massage" we find this statement, "Folk dancing still proves to be a great attraction, and statistics show a great increase in the daily attendance of patients."

This is a beautiful thought. We have not visited these Morris Dancers because we do not know the time of their terpsichorean revels nor do we know the way. But we can picture some airy, spacious hall in the forenoon, when the sun is pouring his laughing limelight through the open windows. There some of our old friends of the Out-Patients' Department, to reduce whose too, too solid flesh dry extract of thyroid proved so useless, can be seen, leaping gracefully into the air, throwing up the right leg, tapping it lightly with the left, turning as they descend and alighting again like snow-flakes in coy little curtsies, with one finger touching the lips and the other hand outstretched and hidden in the voluminous frills of their skirts. Again we picture those chronic osteoarthritics, dressed in green and russet, threading their way through the intricate steps of the Staffordshire Sword Dance. It is a picture on which it is pleasant to dwell. Of a truth, one half of the world does not know how the other half gets its massage.

▭

Last Wednesday the Hospital Musical Society gave one of their excellent Concerts in the Chapter House. With the help of Mr. William Primrose, the solo violinist, they produced a programme that gave the greatest enjoyment to everybody present. All of the tickets for the higher-priced seats had been sold, but the seats remained empty. It is good to know that the concert was a financial success, but it would have been more encouraging to the performers had they played and sung to more people and less chairs. The ticket-holders missed a great treat.

In our next number we hope to publish a full report of the concert.

Obituary.

John St. Clair Shadwell.

THERE will be some of the men of 1871—72 who will remember the father of this student. Educated at Epsom he won a Senior Scholarship and passed the 1st M.B. The head master wrote of his "absolute steadiness and sterling value," and adds, "It is a great happiness to me personally to be able to write in such terms of the boys who have been at the head of the school during the past year." Writing to the boy and thanking him for all he had done for the School, he adds, "If I could have chosen for you I would have kept you another year, to see the fruits of your labours, for you have had a hard and responsible time of transition between the old and the new, and I should have liked to work with you as head of the School." This is indeed, high praise, and those who knew the sterling qualities of his father will not be surprised that he had such a son.

Entering Guy's in October, 1916, he was called up in March, 1917, and on account of his eyesight classed B 1, and posted as a Lieutenant to a Labour Corps. In the following year gazetted a first Lieutenant, he was appointed Commandant of a prisoner of war camp at Upavon. Though he did much useful work in straightening out accounts, and lecturing, he fretted at the inactivity and longed to get away on active service. However, the Armistice found him still at home, and demobilisation followed in 1919, in the January of which year he returned to Guy's Very soon he was struck down by an illness from which he never recovered, and died this summer from hæmoptysis. Another example of the aftermath of the Great War, there passed a youth of great promise, whose ambition it was to prove as good a Guy's man as his father.

C.T.S.

Guy's Hospital Bicentenary Appeal.

THE Preliminary List of Donations or Promises to the Bicentenary Appeal is published below. At present the names of donors who have given £100 or upwards only appear, but further lists of acknowledgements of lesser amounts will be published later.

The Treasurer is anxious to call attention to the splendid help that the Governors and Staff of Guy's Hospital have given.

There has already been contributed or promised to date the sum of £51,000 in which is included the following:—

(a) Governors of the Hospital ... £23,000
(b) Medical, Surgical and Dental Staff £2,100 guaranteed to the Fund, but collections to date £10,000
(e) Nursing Staff, collection to date £1,500
(d) Guy's Hospital Employees' Association collection to date ... £1,000

Unfortunately it is impossible at present to give any sum showing the amount that old Guy's men and present Students have collected. There are nearly 3,000 collecting books in circulation amongst them and the total collected under this heading will appear in January.

The detailed List of Contributions and promises of sums of £100 and over to date is as follows:—

	£	s.	d.
Robert Fleming, Esq.	5,000	0	0
The Rt. Hon. Lord Glendyne	5,000	0	0
The Rt. Hon. The Earl of Iveagh, K.P.	5,000	0	0
Sir Gilbert Wills, Bart.	5,000	0	0
Sir Otto Beit, K.C.M.G.	3,000	0	0
Mrs. Alice Tallent	2,000	0	0
Lloyd's Collection (per J. McNair, Esq. to date)	1,600	0	0
Guy's Hospital Nursing Staff Collection (to date)	1,500	0	0
The Bank of England	1,000	0	0
H. Cosmo Bonsor, Esq.	1,000	0	0
Mrs. F. M. Hurst	1,000	0	0

	£	s.	d.
The Worshipful Company of Mercers...	1,000	0	0
The Rt. Hon. Lord Revelstoke, G.C.V.O.	1,000	0	0
Messrs. Watney, Combe, Reid & Co., Ltd.	1,000	0	0
Guy's Hospital Employees Association Collection (to date)	1,000	0	0
The Worshipful Company of Merchant Taylors	525	0	0
Messrs. Baring Brothers, & Co., Ltd. ...	500	0	0
Harry Lloyd, Esq.	500	0	0
Messrs. N. M. Rothschild & Sons ...	500	0	0
Messrs. J. Henry Schroder & Co. ...	500	0	0
Mrs. M. W. Wharrie	500	0	0
Messrs. Whitbread & Co., Ltd. ...	500	0	0
F. P. Whitbread, Esq.	300	0	0
Barclay's Bank, Ltd.	250	0	0
Walter S. M. Burns, Esq.	250	0	0
Lloyd's Bank, Ltd.	250	0	0
The Rt. Hon. Lord Marshall	250	0	0
The Midland Bank, Ltd.	250	0	0
The National Provincial Bank, Ltd. ...	250	0	0
The Westminster Bank, Ltd.	250	0	0
The Home & Colonial Stores, Ltd. ...	210	0	0
Mrs. G. Macandrew	200	0	0
Major Oswald Magniac	200	0	0
"A Patient" (per Dr. J. Fawcett) ...	200	0	0
H. A. Trotter, Esq.	200	0	0
Dr. and Mrs. A. Hurst...	150	0	0
Alliance Assurance Co., Ltd	105	0	0
Sir Rowland and Lady Blades	105	0	0
Major Reginald Bonsor	105	0	0
J. F. W. Deacon, Esq.	105	0	0
Messrs. Furness, Withy & Co., Ltd. ...	105	0	0
Messrs. Goschens & Cunliffe	105	0	0
Messrs. Hambro's Bank, Ltd.	105	0	0
Col. A. C. Howard, D.S.O., M.C....	105	0	0
Messrs. Leach & Co., Ltd.	105	0	0
Lloyd's Register of Shipping	105	0	0
W. M. Mollison, Esq., C.B.E., M.Ch.	105	0	0
Charles C. Rose, Esq.	105	0	0
Messrs. Thomson, Hankey & Co.... ...	105	0	0
"Anonymous"	100	0	0
"Anonymous"	100	0	0
The Rt. Hon. Viscount Astor	100	0	0
Mrs. Barnes	100	0	0
J. Herbert Benyon, Esq.	100	0	0
Mrs. Boswell	100	0	0
Messrs. Charrington, Gardner, Locket & Co., Ltd.	100	0	0
E. B. Dowsett, Esq., D.S.O., L.D.S....	100	0	0
H. L. Eason, Esq., C.B., M.S.... ...	100	0	0
Dr. John Fawcett	100	0	0
Sir Alfred Fripp, K.C.V.O.	100	0	0
A. C. Gladstone, Esq.	100	0	0
E. C. Grenfell, Esq., M.P.	100	0	0
Sir William Hale-White, K.B.E. ...	100	0	0
Sir Everard A. Hambro, K.C.V.O. ...	100	0	0
H. C. T. Hambro, Esq.	100	0	0
R. M. Holland-Martin, Esq., C.B. ...	100	0	0
M. F. Hopson, Esq., L.D.S.	100	0	0

	£	s.	d.
A. G. Howitt, Esq.	100	0	0
The Hon. Evelyn Hubbard	100	0	0
Sir Edward Hulton, Bt.	100	0	0
John E. Humphery, Esq....	100	0	0
Messrs. M. Hurst & Co., Ltd.	100	0	0
The Corporation of Lloyd's	100	0	0
The Hon. Mrs. Molyneux	100	0	0
Mrs. Hugh Montgomery	100	0	0
Sir E. Cooper Perry, M.D.	100	0	0
Sir Harry Poland	100	0	0
Charles A. Rehder, Esq.	100	0	0
John Robarts, Esq	100	0	0
R. P. Rowlands, Esq., M.S.	100	0	0
Sir A. Mortimer Singer, K.B.E. ...	100	0	0
Sir Charles J. Stewart, K.B.E. ...	100	0	0
W. E. Stuart-Menteth, Esq.	100	0	0
C. H. Thomas, Esq.	100	0	0
Vincent C. Vickers, Esq.	100	0	0
The Rt. Hon. Lord Wavertree	100	0	0
Graeme A. Whitelaw, Esq.	100	0	0
Sums under £100	4,000	0	0

Playtime at the Piccadilly.

Guy's Gala Night.

Do not forget the date—DECEMBER 19th—a Friday. The Piccadilly have arranged for a GUY'S GALA NIGHT in the Grill Room. The attraction will consist of a Supper, Dancing, Jack Hylton's Band, and the Piccadilly Revels (Cabaret). By the 19th an entirely new Cabaret show will have been produced—practically all of the stars are from America — they include the Fooshee Sisters, patterned after the famous Duncan Sisters; Amelia Allen, described as "the World's most sensational acrobatic dancer"; Renie Riano, the comedienne, remembered in the "Music Box Revue" last year at the Palace Theatre; Les Zenga, two French boy dancers; and of course, The Girls, twelve of them this time. New costumes, new numbers, new everything.

Tickets at One Guinea may be obtained from the Secretary to the Treasurer, the Counting House, Guy's Hospital, or from the Piccadilly Hotel.

Messrs. Ash & Compy, Ltd., are again supplying Hospital Christmas Cards, which can be obtained either from the Wills Library or Matron's Office. These cards are similar to those provided last year, with stamped Crest and Hospital Colours, at 4d. each, and in addition another giving bust of Thomas Guy, in plain relief, at 2d. each. The proceeds are entirely devoted to the Hospital Funds.

Injuries of the Knee Joint.

Clinical Lecture delivered at Guy's Hospital on Thursday, Nov. 13th, 1924, by C. H. FAGGE.

GENTLEMEN,—I will speak for a short time of those injuries to the knee which have comparatively small surgical interest.

Sprain of the knee joint is, among the active youth of this country, common. It occurs from a twist, or with marked abduction of the knee; and the internal lateral ligament is the structure which is usually involved, as is evidenced by local pain, tenderness and undue lateral movement. It is usually stated that in the extended position of the knee, under normal conditions, lateral movement is impossible, but I think you will agree, if you make repeated observations that some lateral mobility occurs in many people, so that it is not wise to attribute any lateral mobility present to an alleged injury unless you compare it with the mobility, or absence of mobility, of the uninjured joint.

A sprain of the knee, injuring the internal lateral ligament, usually results in effusion, and, clearly, it is very difficult, in the first instance, to know that the injury to the joint is limited to the internal lateral ligament. It naturally crosses one's mind that an injury to the semilunar cartilage has occurred at the same time as the injury to the internal lateral ligament. When the ligaments alone are injured, full passive movement is usually possible, only limited, of course, by the extent of the effusion, and the condition known as "locking" does not occur. The degree of the injury is cleared up in a short time by expectant treatment, namely, rest in the extended position. But I think, from what I have seen, that there is a tendency to regard the condition as more trivial than it is, and when it has been decided that the semilunar cartilage is uninjured, there is a general tendency to hurry back the patient to active exercise much too quickly. I look upon a sprained internal lateral ligament as an injury which may be fraught with very unhappy consequences to the individual concerned, unless rest is continued long enough to allow complete recovery. In those I have seen where rest has been very partial and temporary, the patients have suffered from occasional recurrences of their disability, and in several cases it has meant that they had to give up participation in active exercises. If rest for some weeks in the extended position—best obtained by putting on a plaster casing, or even having a leather support manufactured for the knee—or the application of heat and massage fails to cure the condition, it is worth while trying the effect of raising the inner side of the sole and heel, so as to throw the weight of the body on to the outer side, and diminish any strain on the internal lateral ligament.

I have very little to say about *rupture of the crucial ligaments* from injury, which I imagine to be an extremely rare lesion. In some intra-articular fractures of the knee, portions of the tibia or the femur, to which the crucial ligaments are attached, such as the tibial spine, are detached; similar disability obviously occurs to that which follows rupture of the crucial ligament.

The diagnosis of injury of the crucial ligaments is often made and possibly occurs less frequently, when gross displacement has occurred it should not be difficult. Rupture of the posterior crucial allows backward displacement of the tibia on the femur, and a rupture of the anterior crucial ligament hyperextension of the knee joint. As I was reading recently a statement by Henderson, of the Mayo Clinic, that, in his opinion, rupture of the crucial ligaments was a very rare condition, I was brought to think that, as far as I could remember I had never seen a case in which it had occurred. I have seen cases from time to time in which it has been put forward that such a diagnosis was possible, but these cases have by rest, cleared up so rapidly, that it is quite impossible to believe that either of the crucial ligaments could have been actually torn across.

Inter-articular fractures of the knee-joint.—I think these are particularly important because of the bad results which may occur from improper treatment. If a fracture involves the internal tuberosity of the tibia, the normal tension of the internal lateral ligament is likely

to be affected, and therefore abnormal abduction of the knee-joint is likely to result.

Perhaps the most important of all the evils which result from an inter-articular fracture of the knee—and this applies equally to every inter-articular fracture in any part of the body—is its tendency to produce a secondary arthritis.

As an illustration of this injury let us take the case of a doctor who met with a motor bicycle accident in 1915. There was much bruising about the right knee-joint, in which extension and flexion were normal, but there was undue lateral mobility of the joint, and when he was examined under an anæsthetic crepitus could be obtained. The X-ray showed a fracture involving both tuberosities of the tibia, which were separated in the mid-line by a small separate fragment comprising the tibial spine, and to which no doubt the crucial ligaments were attached.

In the treatment of such cases there are only two alternatives. The first, and in my opinion the best, is an open operation for the restoration of the fragments to their normal position, the other to leave them as they are, for it does not appear that there is the remotest chance of influencing such fractures by any non-operative means. In this case, as is not uncommon in similar fractures due to severe direct violence, there was evidently considerable compression of the cancellous tissue of the internal tuberosity, owing to which it was thought that it would be impossible to improve materially the mechanics of his knee-joint by open operation.

After treatment in a Hodgen and plaster he wore a calliper so as to transmit his body weight from the tuberosity of the ischium direct to his foot. But he found later, when he discarded a motor-bike for a motor-car, that this apparatus hampered him considerably. And again, being a doctor, he found that if he had to get up in the middle of the night, it was not always convenient to slip on this apparatus. So I am afraid he has given up any support, and after the lapse of nine years—being, I suppose, approximately 40—he has a mild degree of arthritis in his knee. He works a heavy practice, and drives a car constantly.

Loose bodies in the knee-joint.—These occur under a variety of conditions, of which the most common are the "joint-mice" met with in chronic synovitis, portions of synovial fringes, or osteophytes which have become detached in a joint the subject of chronic arthritis. Of these I do not propose to speak further. There are also less understood and more puzzling disabilities, such as that which results from an abnormal position of the popliteus tendon and produces a click as the joint is moved. Allied to this is the condition which has been variously described as "snapping" or "clicking knee," of which I met an example in 1912 in a girl aged 10, in whom, when the knee-joint was nearly flexed, a loud click was heard and the whole knee-joint seemed to stagger. Soon after extension began the sound recurred and then the leg came forward painlessly and freely on the femur. Robert Jones, who first described this condition, rightly ascribed it to disturbance of movement of the external semilunar. I do not know whether this opinion has often been verified at an operation, but in my case this was actually done, for when the external semilunar was exposed and detached in front, traction on the anterior part of the cartilage drew the posterior extremity in between the articular surfaces when the clicking noise occurred; about three-quarters of the external semilunar was removed, and the disability entirely ceased.

In the year 1803, William Hey, of Leeds, known as "Hey the Elder," wrote of a condition of the knee following injury which he called internal derangement of the knee-joint. The condition which he at that time vaguely but accurately described is the condition which so often results from games, and which we know to be due to a tearing of the internal semilunar cartilage. It is interesting to note that, in spite of the risks of the fearsome game which some of you may have lately witnessed at Stamford Bridge, and which is so common on the other side of the Atlantic, injuries of the semilunar cartilage rarely occur in America, and American surgical literature shows that they have very little experience of this injury. Why is it confined to the Anglo-Saxon race inhabiting the British Isles? After Hey, Mayo Robson, in Leeds, was the next to add to our knowledge on this question. He called it "miner's knee," but in the last twenty years many helpful observations of this injury have been made, and certainly the largest clinical experiences have been gained in Newcastle from injuries to the miners.

Perhaps the most important of the observations which have inevitably resulted from care-

ful inspection of such inquiries through an adequate incision is that the cartilage is always torn, and never separated from its detachment to the capsule. If we accept this as a fact and admit that such cartilaginous structures cannot spontaneously undergo repair, it must follow that it is scarcely likely that if such a lesion has been actually produced it can never be put right without an open operation, by which I mean that manipulative replacement of a torn semilunar cartilage by a bone-setter can be only of temporary benefit, and that in cases in which on a diagnosis of torn semilunar cartilage all symptoms have completely disappeared for a long period after such manipulative replacement, the diagnosis must have been at fault.

In the south we regard this as essentially a football injury, and the mechanics of the accidents, whatever they are, must be quite different in a man who is standing nearly erect playing football, from those of the Tyneside miner, who is sitting on his heels. The Tyneside miner apparently so frequently meets with this injury working in a low seam of coal, when a fall occurs and forcibly drives the knee-joint inwards, that is to say, produces a condition of abduction of the knee. I have here notes of five examples of this injury which have been in my wards during the last twelve months. In each case the result of the injury was the same. Three were football accidents, one man was pinned under a lorry, and I do not think it was clear how the other occurred. All five were men, and they were all between 20 and 30 years of age. But the condition does occur in women, for in a series to which I shall refer later, one fourth of my cases were women, one of whom was a French girl who produced this injury when jumping over a tennis net. The ordinary history will appear from this report:—

"In 1921 a man, aged 22, while playing football on fairly uneven ground, against a rather rough side, was congratulating himself on having escaped collision with one of his over-enthusiastic opponents when he suddenly twisted his knee, and felt a sharp stabbing pain in that region. He hobbled off, unaided, to the touch-line, and in a few minutes resumed, but was a passenger for the rest of the game. He was only treated two days afterwards. Eighteen hours after the accident the knee swelled and was painful, especially on moving. He rested his knee for two months, and then resumed football. At the first game, the knee being bandaged, he had no trouble, but subsequently the knee seemed to give way suddenly, when he felt a sharp pain, and he could not resume playing. This kept on occurring at intervals, and he took up refereeing, as likely to be less strenuous. But the same thing occurred on the first three occasions; the knee gave way, and swelled, but not subsequently. His walking was not impaired. He could not completely straighten the knee when it suddenly gave way, but after ten to fourteen days it seemed to return by itself to the normal condition, though it was always painful on the inner side."

One might spend much time in discussing the method by which this injury occurs. There seems to emerge, out of considerable evidence, the fact that the antecedent conditions which favour injury to the semilunar cartilages, are that the knee-joint should be rotated, and that it should be abducted; standing on one foot, as a rule, in an endeavour to move laterally, or to turn suddenly, it appears to me that the twisting determines a nipping of the outer margin of the internal semilunar cartilage, which has passed towards the centre of the knee, having been displaced laterally as far as possible by the opening up of the knee-joint in abduction. When the knee-joint is flexed, each semilunar cartilage passes towards the spine; when it is extended, each is drawn away from the centre of the joint. As the patient turns suddenly it seems to me that he, usually standing on one leg, is extending his knee, and when he extends the knee, the firm attachment on the inner side of the internal lateral ligament drags the semilunar cartilage inwards. Its concave edge, being pinned between the bones of the joint, the usual result is that the cartilage splits in its long axis.

It is always easy to theorise as to the mechanics of an injury; it is a very difficult thing to prove the same. Any explanation which can satisfy one with regard to the internal semilunar cartilage must also apply to the external semilunar cartilage. It is interesting to note that the majority of such injuries occur, as far as we observe it, in what was called by Clarke the "arc of weakness." The knee can, normally, move from a straight line up to an angle of about 60 degrees, varying with the fatty and muscular development of the thigh and the calf. Within the arc of 170—150

degrees lateral movement is most free, and rotatory movements are inclined to occur, particularly rotation of the femur inwards as extension is completed.

It has been sought to explain the fact that 92 per cent. of injured semilunar cartilages occur on the inner side, and only 8 per cent. on the outer, by the fact that the attachment of the internal lateral ligament to the medial meniscus is so close, and that the external semilunar is feebly attached to the capsule, and not at all to the external lateral ligament, its attachment to the capsule being interrupted postero-laterally by the passage on the outer side of the cartilage of the popliteus tendon. It may also be that as rotation of the femur on the tibia takes place mainly about an axis which passes through the internal condyle, this factor determines the relative frequency of injury to the internal cartilage.

I have told you something of the history of this accident of one case. It is an injury which can be almost diagnosed on the history; and from the Newcastle school we have learned that there is always a history of a severe injury, an injury which is severe enough to be remembered, usually followed by several weeks of disability, and, almost certainly by well-marked effusion. Thus if a young man has injured his knee, in a game of football in which he continued to play after the injury, it is improbable that he has torn his internal semilunar cartilage, this is usually the result of a really severe injury, which is quite well remembered, and is followed by effusion, entailing several weeks' disablement. During this period there is tenderness below and inside the patella, which must be, I think, due to associated ligamentous injuries, and in the little triangle below and medial to the patella, a lump may be felt. The lump is very rarely, if ever, the injured cartilage. One has often localised the lump before opening the joint, even going so far as to fix it with a needle through the skin; and whenever this has been done I have found that it has been a thickened synovial fringe, or some other inter-articular structure, and not the torn cartilage. This may be a more practical observation than it appears to be, because, many whom we perhaps undeservedly call bone-setters lay stress upon the reduction of such lumps, and it is very interesting to us who do not share the limelight with them very carefully to analyse exactly what is done. My experience on opening these joints has been that, as a general rule, the lesion and the subsequent displacement of the torn fragment has been such that it could never be palpable from the exterior of the joint.

The second point in the history is the occurrence of locking, which is used in the sense of meaning limitation of movement in extension or flexion—nearly always limitation of extension. The patient can flex his knee to the full, and can extend it freely to a certain point. This is clearly due to the presence of a loose body in the anterior part of the joint, which intervenes between the articular surfaces as extension proceeds. Some surgeons write as if locking of the knee-joint, so-called, was pathognomonic of injury to the semilunar cartilage. The actual physical nature of the obstructing loose body cannot matter one little bit, the important factor is its position. I am strongly of opinion that the occurrence of locking means no more than the presence of a loose body in the joint. It is noted in only about 50 per cent. of my cases of semilunar injury. True locking of the knee-joint, in which the joint is absolutely fixed, and can neither be extended nor flexed, does occasionally occur, but very rarely. It may be caused by a loose body, but is more generally due to a diffuse arthritis.

The last point in the history which completes the evidence of injury to the semilunar cartilage is a recurrence of disability from slight causes. Thus men who have in a severe football accident, put a knee out, will speak of a recurrence on turning in bed. Any trivial action, usually unguarded, may produce a recurrence, and it means that the initial severe injury resulted in a tear of the cartilage, and that any little accident afterwards may result in displacement of the torn fragment. If we lay stress on this history I believe we can usually make an accurate diagnosis, though it is fair to point out that Morrison, to whom we owe this careful analysis of the symptoms produced by an injured semilunar cartilage, was of the opinion that what in my own experience has been the commonest type of injury of the cartilage, such a typical history did not occur. I am incompetent to disagree with Rutherford Morrison on this point; he writes that with a "bucket-handle" fracture of the internal semilunar cartilage, the history is usually one of continued disability without intermissions, but even if his view is correct in the majority of cases, it certainly has exceptions for the

five cases on which my remarks are founded were of this type, and all give a typical story of recurrence with periods of complete freedom from disability, as the report which I have just read illustrates.

Nature of the Injury. — I have already pointed out that the typical lesion is a tear in the substance of the cartilage, and as it is the result of two opposing forces acting in opposition in the transverse axis of the joint, the usual result is a tear running from before backwards in the long axis of the cartilage. This, named by Rutherford Morrison the "bucket-handle" fracture, is the stage at which the lesion is usually met with, but either in the initial accident, or from some subsequent injury, the bucket-handle-like strip may be converted into a pedicled flap by the tearing through of its anterior or posterior attachment, usually the former.

The frequency of "bucket-handle" fractures must be insisted upon, and that all my cases this year were of this type serves this purpose admirably, for I feel strongly that during operation this type is frequently overlooked particularly if the incision be inadequate. If the two parts of the split cartilage are lying side by side in their normal position, the split may not be seen unless the concave border of the cartilage is drawn towards the centre of the joint and conversely when, as can be demonstrated in three out of four cases, the bucket-handle strip has been pushed outwards so as to lie in the intercondylar notch, it may even be overlooked. When in this position, it is easy to see how the anterior attachment of this strip limits extension. I was able to demonstrate this position of the torn cartilage in each of the five cases under review.

In the early stages of the injury, diagnosis is, I think, impossible. With a history of injury to the knee, one would naturally think of a traumatic synovitis, a torn semilunar cartilage, or an injured internal lateral ligament. In this stage, firm elastic compression of the knee-joint, followed by massage, is the line of treatment. When a loose body is causing locking in the knee, it may often be got rid of by full flexion and rotation of the tibia, followed by extension. Flex fully, abduct. and put some pressure on the outer side of the knee, rotate inwards, and extend. I rather gather that that is the common movement which is so financially advantageous to certain unqualified manipulators. It is quite worth while bearing in mind that if you forcibly rotate the knee in the position of full flexion, you can usually get the torn cartilage to return into its normal position. This is pointed out by Hey in his original paper in 1803.

Alternatively, when the diagnosis of this injury is established, there is, clearly, nothing to be done except to remove the torn fragment. Free exposure of these lesions of the knee shows constantly that, however it occurs, wherever it occurs, there is always a portion of the semilunar cartilage left behind attached to the capsule or the coronary ligament. If this is a fact, there is clearly no conservative method which could be adopted towards restoring it in position if we believe, as I think we must, that healing of a cartilage, such as this, is practically impossible.

I favour no particular incision for the removal of a semilunar cartilage, provided it be free—free enough to show the defect which has occurred in the interior of the knee-joint. And if the nature of the lesion within the joint is doubtful, there is no better method than a vertical splitting of the patella for this purpose. Removal of the detached fragment is usually easily sufficient, and is followed by recovery. An endeavour to remove the whole cartilage is unnecessary.

In 1922 Mr. Medlock sent out an enquiry to 36 patients with injured semilunar cartilage on whom I had operated, and traced 21 of them. Of these 36 cases six were external semilunar injuries, and the rest were torn internal semilunar cartilages; so that my average of external semilunars was unduly high. He remarks in this statement, "In every case the result of the operation was satisfactory. Even with a completely satisfactory result there seems to be a tendency for creaking and rheumatism." This might be a result of the mechanical disability from the loss of a cartilage, or it might have been set up by the injured cartilage before it was removed.

There was also frequent mention of numbness of the area of skin round the scar, which may be a result of the incision. In the war this was a very real trouble, for men complained of such defects, and could not be sent back to the line. In a few cases Mr. Medlock found there was aching after exercise, and he emphasises the importance of massage of the thigh muscles following the operation. In these cases only one post-operative complication was

met with, hæmarthrosis. In this case the knee-joint was re-opened and the blood-clot cleared out. This was shown to be sterile, and the result was satisfactory.

I would point out that if the diagnosis is incorrect, exploration of the knee is no small matter. Diagnosis is difficult, especially in men over 30 who have a condition of chronic arthritis of the knee. Now such men may have a chronic arthritis arising from a systemic infection, or as a primary condition of the knee. I mean that it is not secondary to a lesion of the joint itself, such as an injured semilunar cartilage. The arthritis may be the result of the injured semilunar, but the differential diagnosis of this point is often difficult and may only be cleared up by exploration of the joint. I remember seeing, many years ago, an old school friend who had, I thought, a torn semilunar. But he had had his torn semilunar twenty years, and he had got so much arthritis in his knee, to my mind the result of the semilunar injury, that it appeared to me that removal of the cartilage at that time would help him very little, because of the secondary arthritis. Therefore, always beware of the diagnosis of a torn semilunar cartilage in a man over 35 years of age, because it may be that in him you have got to deal with that form of chronic arthritis which is called villous synovitis, or lipoma arborescens, and in which the symptoms are not unlike those of a torn cartilage. I maintain that a carefully sifted story of the initial injury will usually keep you right. I have seen such patients with arthritis of the knee operated upon on the diagnosis of injured semilunar cartilage, and the results of the operation have been very unsatisfactory.

When the diagnosis is correct, there are few things more happy than the return of a man to an active, unhampered life which you obtain by removal of a semilunar cartilage which has been keeping him from the ordinary joys of youth; and it is extremely bad, of course, for a man of 20 to 30, or even of 40, to have to give up active exercise; it quite spoils his outlook on life, and may be very bad for him physically. Here, for instance, is the reply to Mr. Medlock's enquiry in 1922 from a doctor who had been operated on in October, 1921, for a torn semilunar cartilage. He was suffering at the time from lameness on walking, inability to run or follow any kind of sport or to play any game. Pain on the inner side of the knee-joint intense on pressure of the cartilage, and this was most noticeable in his case because he was one of the type of doctor now rare who rides a horse. He found that whenever he got on to a horse, if he tried to grip it it was so painful on the inner side of the knee that he could not ride at all. Mr. Medlock had asked, "In what way have your symptoms been affected by the operation?" and his answer was, "They have been entirely removed, except that the knee is rather weak after prolonged exercise, and painful." "Are you doing the same work as before your operation?" to which he replies, "Yes, and more." "Kindly give an account of the present state of your knee." "The inner condyle is tender, and there is some swelling due to the injury as above, and there is some weakness of the knee-joint and it is hard to describe. It mainly amounts to this: that I have to be careful to avoid lateral movement, and in bed some positions are uncomfortable. I played tennis last summer a few times (some six months after the operation) and hope to do so more this year. The result is really good, especially considering my advanced age, 51."

Such is the result, in one case only, of removal of a semilunar cartilage; but I do feel, very strongly, that the mistakes that I have made—and I would warn you from the same—have been in operating on men over 40, because of the danger of co-existing or independent arthritis of the knee.

Appointment.

G. B. Dowling, M.D., M.R.C.P., Physician in charge of Skin Dept., Miller Peneral Hospital, and Dermatologist to the West London Hospital.

Change of Address.

Dr. G. Newton Pitt, 14, Portland Place, W.1, and Southdene, Walton-on-Thames. 'Phone, Langham 2689 and Walton 5.

S. C. Rowbotham, M.R.C.S., L.R.C.P., 13, Princess Street, Branksome, Dorset.

Publications Received.

The British Medical Journal, The Nursing Times, The Serpent, The Medical Journal of South Africa, The St. Thomas' Hospital Gazette, The Isis, Bratislavské Lekárske Listy, The Gownsman, The Indian Medical Gazette, The Stethoscope, The Prescriber.

A Retrospect.

1869—1924.

(Continued.)

But some of the leading and most earnest men in the profession saw from the first the value of the work of Lister and eagerly followed every step he took in ascertaining new facts and eliminating old errors. So earnest were they and stedfast that they had no feeling but one of reverent adoration for the man who was bringing such unthought of blessings to their fellow creatures.

But still some errors die hard, such was the case of carbolic acid. It had proved such an early friend and had proved, throughout all his early book, so trustworthy, that it continued to be used, long after better and safer antiseptics had been found. Even in this year of grace 1924, I know instances where carbolic acid is used to the exclusion of every other antiseptic.

Even the word, antiseptic, so reminiscent of the past has, in a measure, been discarded, and is no longer applicable to the operating theatre, where there is nothing septic to be destroyed, but all must be free from germ life and clean; in short, aseptic.

Another early favourite, widely and extensively used, until it was found safe to discard it, became such an established favourite with its twin brother carbolic acid, that although superfluous, some still adhered to its use, was the steam spray. An amusing incident occurs to me; an operation for a large and advanced urethral abscess was about to be performed by a surgeon who was an earnest believer at that time, in the steam spray in suitable cases, for the purpose of preventing the entrance of germs during the operation. In such cases I don't think he even left off its use till his death. But in this instance, which I am about to relate, he not only was not going to operate without it, but, as I said, he raised one of the heartiest laughs I ever heard in an operating theatre, at the idea of any one introducing it, in any way of use. As he was about to operate on this case of advanced urethral abscess, very large and one evidently containmuch old pus and sloughy contents, the operator said that he would open it as it was the only thing to do, but the man was so far gone that it was impossible for him ever to recover. Here let me say, parenthetically, that he did recover, making an excellent record for the value of the appointment of "full dresser" at that time in Guy's Hospital. It was recognised broad and wide, that there were no appointments in all London, of their kind, at all comparable with those of dresser and House Surgeon at Guy's. Practically, the dresser was given a free hand, but closely and silently supervised by the house surgeon, just as that of house surgeon was, in its turn, by the respective surgeon. But I will return to this subject later.

As the surgeon took his seat on the stool, after the man had been trussed up in the lithotomy position, the dresser introduced one of the biggest and best carbolic steam sprays, which were, in non-septic cases, such great favourites with this particular member of the staff. But as soon as he saw the nose of the spray producer thrust forward and directed towards the patient's perineum, he was so amused that he broke into one of his own special and customary giggles, "He—he, ha—ha, Mister—r—er Blank—er—r is going to carry on the treatment antiseptically. He is quite welcome, but he is much too far gone to recover from such a desperate condition. But go on Mister—r—er Blank—er—r, start the spray." The spray was started and covered the whole area with a thick cloud of carbolic acid, but no sooner was the knife plunged into the lump, and its contents began to run out through a large opening, than the crowd of students sprang back with hands to their noses whilst the surgeon left his stool and called out loudly, "Bring another spray, bring all the sprays." The dresser stood bravely to his post and said, "I know, I've seen one of those old and rotten urethral abscesses opened before; there's nothing stinks like them." I believe it is one of the most pungent and penetrating odours the surgeon ever has to face, but fortunately they are not now often allowed to get to such a pitch.

The man was too far gone to require chloroform or to feel the pain. But he was taken up to Samaritan Ward, where he lay in the same torpid condition for days. The dresser concentrated all he knew on the nursing and feeding. Poor Sister Samaritan, she had no

peace, all her time was taken up in feeding this man and keeping the wound and its entourage clean, whilst the dresser saw that no more pus was allowed to collect in it, but gentle pressure and drainage kept the walls more or less in contact during the intervals between washing and syringing.

After a few days he began to look about him, and at the end of a week there was a marked improvement. From the moment he was taken from the theatre to the ward, he had given him one ounce of brandy day and night. He took 24 ounces, one bottle, of brandy every day, during the rest of the term of Kirby Smith's house-surgeoncy, who fortunately was a great believer in the value of old alcohol, and this belief grew stronger as he grew older. Most folks would say "The patient would be always drunk." He was not, nor anything at all approaching it. At first, he was conscious and that was all. After Kirby Smith, there came on P. H. Pye-Smith as house surgeon, who, although a genial man, was a pronounced total abstainer. The dresser had a hard battle to fight to get him to countenance such heavy drinking, but he staked the whole force of his reputation as dresser on it and his character pulled him through. The man by now showed distinct signs of increasing strength, and at the urgent plea of the H.S. the stimulant was reduced to 18 ounces of brandy, and then one bottle of sherry per day, until as the wound healed, it was gradually left off entirely. The man had evidently a fine constitution naturally, and the excellent nursing of Sister Samaritan and her helpmates did the rest. It was very rarely that any interesting case entered that neglected and highly septic ward, but she showed that when it was required, she had got the true nursing grit and spirit.

One would say that there was not much of the "comic" about this serious case, but it would have been hard for anybody, even the most stolid, to have resisted the humour of its strongly comic aspect at seeing the "situation" so quickly turned upon the author of the first deferential and respectful smile at the apparent desire of the dresser to perform so septic an operation antiseptically, and then, in a moment for the joker to be turned into the leader of the fugatives, and himself calling, not for one only, but all the steam sprays.

But it was hard, at this period, for some students to see the humour of antisepticism, who were in for competitive examinations, and hoping to come out well in the end.

It was no secret that some of the examiners were non-believers in Lister's views, and refused to accept his theories concerning germs and carbolic acid, and as men in the front rank of the profession, they refused to cancel the creed they had held for a lifetime and to accept the still imperfect ideas, discoveries, and developments of a newcomer. They demanded that their ideas should be respected in the examination rooms.

I remember well how one of the best men in for honours, in that happily short period, who had absolutely no chance of success, if they, seeing the wisdom of modern research, had put their ideas of antisepticism into their answers to the questions set. It is true that had some of the examiners admitted there might be "something in it" after all, but it is an established fact that for a certain short period, there was but perhaps one, or at the most two, of the Hospital Staff, and they the younger members, who taught according to the views of Lister; yet the examiners at the College were all of the older School; men who looked on, and denounced, in a quiet way, *there*, the whole of Lister's teaching as rubbish and fads and for the greater part, merely a means by which certain younger men, who ought to know better, used as a method of attracting attention to themselves.

Looking back now from our present standpoint and comparing our present position of knowledge, when we think all errors and unnecessary formulæ have been eliminated and just the main principle of cleanliness and freedon from risk of contamination and re-infection retained, it seems no wonder that the ridiculous side of so much washing and carbolic spray should strike the observer with more force than the imperfect state of the theory at that time, which in practice did not always lead to success. Truth does not always come in a lump, but as in this case, many errors are unfortunately overlooked, and many lauded as necessary and essential which are now known to be of no value. During the long years which have elapsed since Lister first took up arms, determined to slay the dragon of sepsis, the reason of failure in so much surgical work, one cannot but admire the courage and pluck with which men of that period stuck to their task.

It is hard for any man of to-day to con-

jure up the darkness of Lister's time, when the very word "germ" was a sneer and taunt. The expression "a believer in germs" was the label of a "prig," used in conversation by a certain class, a "germ" being undemonstrable, much in the same way as "a vitamine" is now, but Lister saw the light in the far distance, and knew it was there, and when it was reached all would be clear. But it shed no ray on things immediately around him. He had to grope as it were in the darkness about him, he and his little band of helpers, and step by step pick up facts one by one and examine them, and see if they were essentials. Carbolic acid was one of the first things which he found was a truth. It was clung to so firmly that it was a long time before it could be supplemented and acknowledged as inferior.

But in spite of all opposition, scorn, derision and disappointments, the brave little army persevered and followed the gleam with a patient courage which has never been surpassed, if even equalled, in the long annals of Medical Science, and worthy of the very highest honour which it is in the power of the country and the world to heap upon its originator.

Other men have gained high distinctions in medicine and surgery, but none have conferred upon mankind generally, the lasting and practical benefits won by the perseverance and pluck under all sorts of opposition and discouragement which Lister and his followers have made it possible for us to bestow upon the sick and suffering. All this has happened in Jacobson's time. He has been privileged to see and take part in it all. I can still see him as a first year's man in the Sixties, smitten with humility and awe at the loftiness of the profession he had embraced.

He has been a faithful follower and worker, his one desire and ambition having been to be worthy of his high calling. This ambition he at length achieved, and from being a follower, he became a leader himself, like his old master and pattern, not seeking lucre and personal glory, but the reward which alone the true disciple covets, just for the advancement of knowledge for its own sake, and for the assistance of those working in the same field, whose duty it will be to carry on that work and acquisition of still higher knowledge, to be handed on in its turn for the benefit not only of the present, but of all future generations.

Some Philosophers tell us that the higher we get in any true science, and the more we weed out error, the more simple and elementary does the science appear to grow. It almost seems as if in the long perspective of distance, all truths seem to converge to one centre point.

One God, one law, one element,
And one far off divine event,
To which the whole creation moves.

So said Tennyson, and he was a thinker of the highest order, and who, like Shakespeare, was seldom or never to be drawn to false conclusions.

The Listerian philosophy has grown more and more, and during its growth it has also developed. So, as truth has been cleared from extraneous matter, and error discarded, the Science of Listerism has gradually become also more simple and easy to comprehend and follow.

This has induced some men of elementary intellect, to cease paying the respect they once had for it, when the ritual was more elaborate, and the details to be observed more numerous and awe-inspiring, when the head had to be covered and the nose and mouth bound up, lest any particles of filthy mucus, or perhaps even some of the ectopic zoophytes should seek shelter in the wound.

Not all had the wit to see that the increased simplicity demanded increased accuracy, and a higher state of scientific development. The desertion of these lovers of elaborate and formal methods was far from doing injury to the growth and development of the germ theory. It was welcome and amusing to those who remained faithful. One of these was Jacobson. He had seen the beginning and watched the progress grow and develop until it became as it is now, the goal and perfection of science in medicine and surgery.

These intermediate workers, and their work have now almost become forgotten until the death of one of them, now and then, causes the memory to recall the past and repeat to us once more the glorious past and tell to what wit and intellect we owe the enviable position British Surgery now occupies, and how perseveringly and quietly that position has been won for us by such men as the one now passed away, who made it his life's work to teach men how to operate with precision and safety under the new order of things discovered and perfected by Lord Lister and his fellow workers.

The science, though perfect in its results, was complicated and awkward at times, but now all fringes have been cut off until the

whole is reduced to two simple words, never understood before, but invented and perfected by Lister—"Surgical Cleanliness," or Asepticism. He taught the world what that newly invented word meant, which, when reduced to practice, is the means of saving of millions of valuable lives, and the restoration to health and ease of countless numbers of chronic invalids, who would otherwise be suffering and incapacitated by causes quite inoperable under the old regime, but which by the aid of the aseptic method of operation are easily restored to health and other blessings attendant, of which they had been deprived.

Incalculable harm is being done by some of the modern generation, forgetting the persistent toil and labour, and the high intellect required for that work which has been already done, and which was necessary to achieve the results we have now reached. It almost seems as if only a few men remain, and who, one by one, are now rapidly passing away, that know how to value the debt we owe to the men who have taught us the meaning of the words —"surgical cleanliness" or asepsis.

A friend and fellow student of Jacobson's, a Lecturer and Professor of Surgery in a British University, said to me a few years ago, before his death, "I have given up now lecturing on or teaching antiseptic surgery; we know now that there is practically nothing in it except that you must be clean. A surgeon and all concerned must keep his own hands and person and clothing free from dirt before operating, or touching a clean wound. That is all; it is simplicity itself." Was ever greater injustice done to the lives spent in this great work, initiated and carried on by hundreds of talented men led by Lister? Consider the numerous other surgical and medical procedures that have sprung up from this, now, established fact, at its various stages, like shoots from the "joints" of a rhizome.

The whole series of life-saving measures, akin to vaccination, which have originated from our knowledge of germs, bacteria and antitoxins. And all this became known and gave rise to side issues, all of which arose in process of tracking down the cause of sepsis. Who had ever heard of germs, bacteria, etc., until Lister opened up the field? This is one of the many other invaluable issues that one meets with at every step in the progress of tracing the source from which suppuration, etc., arose.

To cast aside the teaching of antisepsis from its origin, step by step, to its final successful issue, is not only to rob the names of Lister and others of their glory, but to bury and cover up the other facts and their issues which were laid bare during their long course of investigation. Who knows what knowledge may yet come from the side issues in the investigation of infection and the germ-theory? It was Lister who opened up our knowledge of the natural history of what are as far as our present knowledge goes, the most minute of all God's creatures. So minute indeed as to be lost to the ordinary means of microscopic vision. New methods had to be employed to trace the inhabitants of this new world. Who knows what it may lead to?

Big fleas have little fleas,
On their backs to bite 'em;
And little fleas have smaller fleas,
And so "*ad infinitum.*"

Lister found that the destruction of these small invisible atoms of life meant the destruction of the constitutional disturbance which their life-history caused; each different in its way; labelled by us disease, and therefore his end was gained in the opinion of the Surgical World. Not so, there was a still higher truth to be gained, viz., the prevention of the entrance of them to the wound, so that all the trouble of destruction or disinfection was done away with. This was asepsis. The stoppage of the symptoms caused by germ-entrance by destruction of the micrococci which had gained entrance was antiseptic; but the higher power of prevention was asepsis. To surgeons it was a still more valuable gift than antisepsis and simplified operative measures considerably, but it did not supplant *all* the other scientific truths that Lister and his followers had discovered.

It is this state of the removal or prevention of contact with anything possibly carrying "matter out of place," which means asepsis or absence of anything septic, or "surgical cleanliness," a term never understood till Lister taught us. Was it not a mark of a mind not sufficiently expansive to grasp the breadth of the great Truth! which had cost so much, to discover? Was it fair to rob Lister, and his workers, of the honour attaching to their intermediate work, to blot them out entirely from the teachings in the Science of Surgery?

(To be concluded.)

Birth Control.

Paper read before the Guy's Physiological Society by Mr. C. P. BLACKER, on Tuesday, October 28th, 1924.

WHEN, some ten days ago I was approached by the Secretary of this Society and invited to read a paper on Birth Control, I immediately felt myself in somewhat of a dilemma. In the first place, the subject is such an immense one that I felt somewhat at a loss to know from what aspect to approach it, and what part of it particularly to develop. In the second place, as some of you may know, I expressed my views on it in a letter to the GAZETTE which was published last Saturday fortnight, and I felt that if many people at this meeting had perhaps read this letter, it would be somewhat tedious for them to listen to a repetition of the arguments therein propounded.

The first part of my quandary was, however, solved for me, by my happening on that morning to meet Professor Pembrey near the Medical School Office. He very amiably repeated the invitation of your Secretary, and after telling me that it was the custom of this Society to give and take very hard dialectical blows added, more or less by way of an afterthought that he personally was diametrically opposed to my view of this controversial subject, on *Biological Grounds*. This gave me my cue. It is my conviction that the biological argument is one of the strongest arguments in favour of birth control, and I made up my mind, in this paper, to try to develop this argument as fully as time permits me.

In the first place it is desirable that we should have a clear idea of what is meant by the term "biological," and I think it worth while to spend a few moments trying to define its application to the present argument.

The theory of natural selection, as developed by Darwin can be formulated from a deductive and inductive standpoint. *Deductively*, Darwin pointed out that from *three* biological data which were recognised as obvious and self-evident by everyone, it followed with a high degree of probability that no species was immutable, and that only the so-called "fittest" preferentially could survive. These three data are the following:—

1. All organisms in a state of nature live in a hostile environment, threatened by inorganic forces of nature, by enemies preying upon them, and struggling always against competition of their own species both for food and, in the higher animals, for mates.
2. All living organisms produce more offspring than can, in a state of nature possibly survive without causing an intolerable degree of overcrowding in a very short time.
3. All organisms tend to vary, no two are exactly alike. Even though from outward appearances they may resemble each other so as to appear identical, there exist minute differences which distinguish them.

From these three data there follows a high degree of probability that no species is immutable, and the variant that is best "fitted" to the particular environment that prevails for the species, will survive and perpetuate itself in preference to less favourable variants. Thus from known and generally admitted facts something in the nature of evolution was to be expected.

Inductively, he showed that there existed strong reasons for supposing that the higher animals and plants actually *had* evolved from simpler forms. He adduced the arguments of palæontology, embryology, comparative anatomy, domesticated animals, rudimentary organs and difficulties of classification to support his contention. The inductive argument does not concern the present thesis, and I propose to consider a little more closely the deductive argument.

The criterion of "fitness" is one with regard to which very little in the way of *generalisation* is possible. It clearly varies with the environment, structure and mode of life of each different organism. Characters which will enable a protozoon, or a polychæte or an internal parasite to compete successfulfy against others of the same species, and against the hostile elements in their environment, clearly have nothing in common with characters which

could do this for an insect, reptile or a mammal, and I do not propose to enter into a discussion of the biological significance of the word "fitness" in any other application than the one it possesses for the human race.

But before doing this I should like to pause a moment and consider a process of nature which has, in my opinion, great relevance to the significance of this important word "fitness" as applied to man.

In the process of biological evolution there are manifested at infrequent intervals important *crises* which give rise to a completely new line of development and structural modification. For illustration, I shall consider two—firstly the transition from an aquatic to a terrestrial life of our vertebrate ancestors, and secondly, the transition period which resulted in the substitution of birds and mammals for reptiles as dominant vertebrates on the earth's surface. Now we can picture to ourselves certain qualities in virtue of which a fish could be considered fit. Such are swiftness and rapidity of movement, a coloration that harmonised with its environment, acute vision, delicate sense organs, general vitality and resistance to hunger, heat, cold and disease, fecundity, and an equipment of appropriate instincts.

But when in a muddy inland river the first dipnoid began to come to the surface and gulp down air into the swim-bladder, which was destined to give rise to the vertebrate lung, and when this animal began later to crawl out on to land, and to live in a new element, it is clear that with the possible exception of general vitality and resistance, those qualities which could have stood him in good stead as a fish would, under the new conditions, be of no use to him whatever. The terrestrial amphibian, if he is going to survive will have to do so in virtue of a new set of qualities.

A conservative piscine critic observing, for instance, the gradual development of the pentadactyle limb for the fin which he and his forefathers had always possessed might easily remark, "I am profoundly opposed on biological lines to this ridiculous new-fangled arrangement. Nature endowed us with fins because she intended us to remain in the water. All these new adaptations your are making now are contrary to what all sensible fishes know to be sound biological principles."

To turn now to my second instance. The replacement of reptiles by mammals as dominant vertebrates in the world has always been a difficult problem to understand. During the secondary period the surface of the earth was populated by an astounding variety of formidable reptiles that dominated every element. The sea was peopled by enormous swimming reptiles—which probably competed successfully against the larger selachians. The air had been conquered by the Pterosaurs, large winged reptiles as big as our biggest flying bird today. And the surface of the earth was overrun by reptiles of many different appearances and habits. It is probable that the huge carnivorous dinosaurs many times larger than the largest of our existing carnivora stand as the most terrible and fear inspiring animals that have ever lived on the planet. At this time there did not exist a bird or a mammal that could as much as wink at one of these big Dinosaurs. How then did the humble little mammal come to supplant these redoubtable foes? One solution of this question is, I think, to be found in the spell of intensely severe cold that followed the secondary period. Reptiles as a class are adapted to hot wet climates, such as prevailed during the secondary period. The five existing orders of reptiles do not extend much into the colder regions, and flourish in the tropics. Thus when the cold came the the criterion of fitness was altered. The size, the swiftness, the ferocity, the terrific power of the Dinosaur, who probably laid her eggs in some steaming marsh and then thought no more of them, availed her nothing. But the small reptilian precursors of birds and mammals, those reptiles, that is, that were equipped against cold by the possession of feathers and hair, and had probably retreated into mountain fastnesses to escape from the competition of the lower levels, and who had evolved a fondness for their young, and cared for them after they were born (as they had to do since in such inclement surroundings the young could not fend for themselves), these humble creatures were favoured by the new conditions.

They probably slowly came down from the hills into the marshes and plains in proportion as the cold cleared these regions of their terrible occupants, and they eventually found themselves lords of the earth. Thus as a result of a change of environment a whole new set of structures and instincts were favoured by Natural Selection. In the face of environmental changes therefore, which are modifying the previous biological criteria of fitness, it is

futile to continue to extol the old standards as the only sound ones, and to oppose the new standards *on biological grounds*!

Thus a Theromorph—which was the Mesozoic reptile which most closely approximated to the mammalian type—might at the end of that period have declaimed, "What is all this ridiculous nonsense about growing hair? We haven't done it before. Why should we do so now? Who wants to alter us? Only you reforming cranks and humbugs, who instead of improving the race of Theromorphs are going to ruin it, because they don't understand sound *biological principles!*"

I need hardly add that shortly after making this remark our imaginary Theromorph, together with the rest of his species, became extinct.

From the above two instances, and there are others that could be quoted if time allowed, I propose to make a generalisation which I shall return to and pick up again, later when I deal with the criterion of biological "fitness" as applied to the human race. The generalisation is this: *When a species is subjected suddenly to unstable and changing environmental conditions, standards of survival value that have previously obtained for it, may cease to be of profit to it, and it may then become biologically advantageous to that species to abandon its old standards and to adopt new ones.*

I propose therefore to use the term "biological" in the sense that that is biologically good which will be likely to benefit or improve the race under existing and future conditions. My criterion is thus essentially racial and general, and not individual and particular.

My task then is to attempt to show that the further dissemination of knowledge of birth control is likely to be beneficial rather than harmful to the future development of the human race.

Since this discussion is essentially a practical one, the question of the theoretical goodness or badness, rightness or wrongness of the practice of birth control does not enter into it. We are at present living in a country and in a world where a certain number of things have irrevocably taken place whether we like them or not. I propose, then, to take as given, for the present argument, three circumstances which no amount of arguing on any of our parts is likely to alter. They are the following:—

1. Contraceptive methods are now being practised extensively by the upper and middle classes of all civilised countries, and much less so or not at all by the so-called labouring classes. Whether we regret this circumstance or applaud it—our attitude is not going to do very much to alter it as an accomplished fact. The campaign in favour of birth control has been launched, and what has been done in this direction cannot now easily be undone. I consider it best to take this fact as given, though I add with all the emphasis at my command that I consider it deeply to be deplored, and meet to be altered at all costs so soon as such an alteration is possible. I shall return to this point later.

2. The *average* married man is going to require to have sexual intercourse with his wife *at least* once every three weeks. For the average man, taking into consideration all classes and all ages, this is, in my estimation, an outside limit. I am informed that by certain opponents of birth control in this hospital the opinion is held that the average individual has coitus with his wife somewhere about twice a year, and that if more children are not wanted, this end is achieved by his merely abstaining from indulgence on these rare occasions. This is a topic for which, for obvious reasons, it would be difficult to collect figures. but I am profoundly convinced that the above view involves a mistaken conception of the sexual requirements of the average married man. It is probable that the majority of men, including, of course, working men, have intimacy with their wives very much oftener than this.

In this connection, again, it is futile to advance seriously the argument that the man should exercise self-restraint and refrain from intercourse if he does not want children. Though everyone would agree that it would be highly desirable that such restraints should be practised wherever and whenever possible, it is so manifoldly impossible to expect people to do it, that the contention, while doubtless possessing ethical value, has no practical value whatever.

3. The process of the semi-automatic elimination of physically unfit members of the human race by natural selection, as obtains among animals and plants in nature now no longer takes place in civilised human communities. There exist three causes for this. They are: Firstly, The perfection of man's mastery over

disease; secondly, the increase in humanitarianism and altruistic feelings in civilised countries, and thirdly, the process by which governments acquire votes under the present electoral system. This nurture of the unfit may or may not be deprecated on biological grounds. It is obviously diametrically opposed to the course that nature takes in the organic world when man is excluded from it. But whatever we may think of this state of things we are not likely to alter it. We may strongly disapprove for instance, as does Dr. Beddard, on biological grounds, of artificially keeping alive for a long span of years at considerable expense, a diabetic that we see casually in the wards of this hospital. But our disapprobation of this procedure is not likely to achieve much in the way of alteration of the generally acknowledged principle that a man should we kept alive if this is by any means possible, whatever his physical condition may be.

I propose then, to take as definitely given, and inherent in the present structure of society, and in human nature the propositions that contraceptives are used by the upper and middle classes, and less or not at all by the lower; that the average married man is going to require sexual intercourse with his wife at least once every three weeks, and that in civilised countries nowadays the utmost is done to keep the physically unfit alive. Taking these circumstances as given, the question then resolves itself into this: Is it likely to be beneficial or harmful to the race, and especially for the population of this country, that knowledge of contraception be communicated to the labouring classes? My contention is going to be that benefit rather than harm is likely to come from this extension of knowledge.

The principle of natural selection which obtains throughout nature, holds also, in a modified form for primitive races, and especially for those of nomadic and war-like habits, such as the desert tribes of Northern Africa, the Tartars of the Asiatic Steppes and North American Indians. Among such races the number of wives possessed by a man, and therefore of children which he procreates, is more or less proportional to his tribal prominence, which last is also roughly proportional to his possession of qualities such as resourcefulness, power of leadership, and physical prowess, which qualities have obvious biological value. Thus in such communities the biologically fittest have the most offspring. The same to a much less extent, obtains in polygamous communities where wives are acquired by purchase, and where the size of a man's Harem is proportionate to his material wealth. I say to a much less extent, because it is doubtful whether the qualities which are likely to make a man financially affluent, need necessarily possess crude biological value.

I contend, however, that as a result of social changes that have taken place in the last hundred years, nature's principle of the survival, or rather, the greater fecundity of the fittest, has been for practical purposes *completely reversed* in civilised countries.

It is clear that the validity of my argument is going to depend on my being able to substantiate the view I hold of what constitutes biological "fitness" in civilised societies. I propose to reserve the discussion of the significance of this word till after I have described a characteristic of modern democratised industrial communities, which I hold to be relevant to the argument.

Up to the beginning of the last century the so-called gentry and professional classes had as large or nearly as large families as the working man, and the submerged class of diseased and feeble-minded unemployables was not nearly so numerous. Furthermore, a much higher rate of mortality occurred among children of this class. In those days there were no fever hospitals, no sanitary system comparable to the one that now prevails, and no dole the magnitude of which was made proportionate to the dimensions of the family of the unemployed father.

The result was that though the working class was more prolific than the upper and middle classes, the mortality among them was higher, and the relative rates of increase were in approximate equilibrium.

Nowadays, however, this no longer obtains. These effects are partly due to improvements in medical science and hygiene, and partly to the increasing prevalence of feelings of elementary Christianity which make it difficult for us to contemplate with indifference the starvation, degradation and misery of less fortunate fellow human beings. This attitude of mind, I may remark, is not found to the same extent in less civilised countries. Thus the Russian Grand Duke Nicholas, participating in a grand shoot of pheasants somewhere in England before the war, and not always being what is known in sporting circles as

a "safe shot," on one occasion shot a beater, wounding him in some fleshy part. The event produced some commotion, and first aid was administered by the wives of some of the shooters, many of these distinguished and well-born ladies. The Grand Duke observed the little scene from a small distance with an air of rather puzzled amusement, and then drew aside one of the men of the party and remarked to him, "You are an extraordinary race, you you English. I cannot understand why you should want to make a fuss over a man like that; after all, he is only a *beater*." He spoke of him as if he were an animal. The combination of this increase in humanitarianism together with the faults of the democratic system of government, determined by the voting of a mostly proletarian electorate, has resulted in a lavishing of a quantity of attention, money and care upon every phase of life of our most abject pauper, such that it is well nigh impossible for any individual, however impecunious and workless, actually nowadays to starve. Many phases of the lives of our proletariat are vastly facilitated by civilising legislation and philanthropic charity organisations. Their children are brought into the world for nothing. They are educated for nothing. When they get senile they are supported by old age pensions. And if they fall out of employment they are given a dole.

At this juncture I should like to make a momentary digression to consider the antecedent causes of the condition which now prevails in this country, which, after all chiefly concerns us in this argument. The period immediately following the Industrial Revolution was one of unprecedented prosperity for this country. We availed ourselves of resources of coal and iron without delay, and were the first country in the world to start making machinery and other manufactures on a large scale. We had the world as our market. Though the labour conditions which prevailed were, in many instances, appalling, the country became progressively enriched, and together with this, the numbers of our population increased by leaps and bounds. The magnitude of this increase is worth noting.

In 1821 the population of England and Wales was just over 12 million. A hundred years later it was nearly 38 million. That is to say, in a hundred years it is more than trebled. In the latter part of the 19th and in the 20th century, however, other countries began manufacturing and building machinery, and commenced to compete with our products, restricting our markets and, in many cases, underselling us. The brilliant noon-day of our industrial prosperity began to be eclipsed. Our industries began insidiously to stagnate, and by slow degrees the unemployment problem which now looms so large on our political horizon, began to unveil itself. But did our numbers diminish in proportion as our prosperity and power of employing labour diminished? Not at all. On the contrary they continued to increase, and the mode of their increase is, in the present connection, highly instructive.

Let us first consider our national birth rate. This reached its maximum of 36 per thousand in 1877 and since then has been steadily falling till last year it was only 20 per thousand. This reduction, however, has not been accompanied by a decrease in our numbers since the death rate has fallen equally as steadily as the birth rate. On balance, as a matter of fact, our numbers have been steadily increasing at a rate of roughly one per cent. per annum. The inhabitants of England and Wales in 1901, numbered 32,527,000, in 1911, 36,070,000 and in 1921, just under 38 millions. The fall in the death rate is, I suppose, almost solely attributable to the improvements in sanitation and medicine that has taken place. The lives of hundreds of thousands of children that 50 years ago were lost in epidemics of diphtheria, scarlet fever, etc. are now saved by the efficient public health system in fever hospitals in large towns. The lives also of many adults that 50 years ago would have been cut short, are now greatly prolonged. The net result of these two tendencies—towards a lessening of our industrial supremacy and diminution of our national prosperity on the one hand, and an increase of our numbers on the other—is that this country is now greatly overpopulated. The extent of our over-population can roughly be measured by the magnitude of our unemployment figures. At the present moment we have nearly a million and a quarter unemployed, and probably a larger number working short hours. The result of this upon the morale of the country is disastrous.

No man can live a decent self-respecting life on the dole. *Most* of our present unemployed, I feel sure, originally bitterly regretted and resented their unemployment, and felt humiliated by it. But the longer this state continues the more it saps the vitality and

pride of its victims. The man becomes accustomed to the low standard imposed on him, expects the dole as his due, and ceases to make efforts to alter his condition. Slowly the unemployed becomes unemployable, till eventually he becomes a miserable parasite upon the community, full of grievances, and both incapable and unwilling to help himself. A friend of mine engaged on facilitating emigration to Australia informed me that it was common to find men who had been long out of employment, *professing* a desire to emigrate, but always as it were half-heartedly, with a copious recital of obstacles that prevented them from doing so. It was quite obvious that those men really did not want to go. Children, too, grow up imbued with their parent's standards; their respect for their parents disappears, they become lazy and vicious, and fall an easy prey to the agitator, who is always on the watch for proselytes. And here again I would like to digress for a moment to consider another circumstance of the highest relevance and importance to this argument.

Holding the reins of power in Russia at the moment it is a group of men who have engineered a "bloody" revolution (i.e., a revolution characterised by the shedding of blood) in their own country, and entertain the most ardent hopes of encompassing the same end in other countries. For these men any event, any contingency, any condition of things that facilitates and favours the social revolution, is *good*. Anything, therefore, which is likely to foment discontent and to kindle social unrest and to envenom class hatred is good. These men contemplate the unrestricted increase of our submerged masses with a mephistophelian satisfaction, for by it are we not numerically increasing the "army of revolution" as they call it, and, further,, by lowering the standards of life of the working classes are we not fanning the fires of that hatred of the bourgeoisie which alone can inspire the social revolution? That is the way they argue. Any restriction of the multiplication of the so-called proletariat, in so far as it would better their lot in life, and make them more contented, will diminish their ardour for the social revolution, and will therefore be opposed by Communist agitators and Bolsheviks.

(To be continued.)

Reviews.

General.

The Extra Pharmacopœia. Vol. I. By W. HARRISON MARTINDALE and W. WYNN WESTCOTT. 18th Edition. Published by Messrs. H. K. Lewis & Co., Ltd., London. *Price 27s. 6d. net.*

IT is over four years since the last edition of the Extra Pharmocopœia was published and in the present edition much new information is included. In over eleven hundred pages of small, though perfectly clear type, references will be found to everything appertaining to the therapeutic use of drugs. The book claims to contain the chemistry, pharmacology, doses and therapeutic uses of every drug, chemical, organo-therapeutic body, vaccine and the like, used to-day in medicine and, as far as it is possible to judge, this claim is justified. There is certainly a vast amount of useful knowledge contained between its covers and it is bound to find a place among the books of reference in many a consulting room.

Essays and Addresses on Digestive and Nervous Diseases and on Addison's Anæmia and Asthma. By ARTHUR F. HURST, M.A., M.D., F.R.C.P. Pp. 320. 15 Plates and many illustrations in the text. Published by Messrs. Wm. Heinemann (Medical Books, Ltd.), London. *Price 21s. net.*

THE author's object in republishing these essays and addresses is to put on record his present views on various subjects in which he has been specially interested during the last ten years. They have all been revised and expanded, and they represent his considered opinions at the time of going to press. There is a valuable and up-to-date bibliography at the end of each chapter. The essays for the most part deal with some disorders of the alimentary system, and, as might be expected from the pen of Dr. Hurst, the nervous manifestations of disease are not lost sight of. He calls attention to the hypersthenic gastric diathesis, an inborn variation from the average normal, manifesting itself in hypertonus of the stomach and hyperchlorhydria, which he regards as the essential predisposing factor in the pathogenesis of duodenal ulcer. Further, the essays include discussions on achlorhydria, and particularly its association with Addison's (pernicious) anæmia and subacute combined degeneration of the spinal cord, cholecystitis, appendicitis, Hirschsprung's disease, achalasia of the cardia (so-called cardiospasm), and last, but not least, the sins and sorrows of the colon.

The subject of asthma is one of special interest, as recent research in England, France and America has led to the explanation of many problems connected with the disease which have previously been obscure. Moreover, the author's own personal knowledge of asthma extends over thirty years of observation, which renders his remarks of special value. In this essay he deals with anaphylaxis, animal emanations, food pollen, toxins and emotional asthma, and in treat-

ment discusses the irritable bronchial centre, the chemical, reflex and psychical stimuli which may affect the centre, and the attack itself.

The essays are illustrated by quotations and stories from many literary sources, as we have come to expect in Dr. Hurst's works, and altogether form a valuable contribution to medical literature and an agreeable addition to any private medical library.

The Diagnosis and Treatment of the Infectious Diseases. By F. H. THOMSON, M.B., C.M. (Aber.) D.P.H. Pp. viii. and 208. 10 Illustrations (including 7 Plates). Published by Messrs. H. K. Lewis & Co., Ltd. *Price 7s. 6d.*

OF all the appointments that we do in the last two years of our career as medical students it is probable that none is so important for our future life in proportion to the time spent at it as is that which we do at the Fever Hospitals. Into whatever branch of practice we may pass, a good grounding in the knowledge of infectious disease is of value; in many branches it is of the utmost importance. To the general practitioner it may mean success or failure. The wanderer, whether by sea or land, may meet some infectious disease at any moment in the most unexpected place. The school medical officer needs the knowledge almost as much as the medical officer in a fever service; even the consultant leading a monastic life in the walls of his hospital and consulting room may suddenly be faced with some problem arising therefrom. It is therefore important and almost imperative that the student as well as the practitioner should have some volume to which he can refer easily and immediately.

For such a purpose we can thoroughly recommend the book before us. It is terse and compact, and while not pretending to go into every aspect and every detail of a large subject, it covers the ground sufficiently to meet any ordinary emergency. Dr. Thomson is a Scotsman from Aberdeen, and as such we should expect from him a caution in statement and a moderation in expression which is more common in the northern than in the southern part of this isle. Such an expectation is borne out by his opening paragraph which runs as follows:—

> "We know a little about the mode of ingress and egress of infection to and from the body, but our general knowledge of infection is very limited. We do not know why certain diseases show a cyclical epidemicity and why others do not, nor do we understand why a disease becomes pandemic. We do not know why infectious diseases have a particular seasonal prevalence, and we have but partial knowledge of the reason why a disease becomes more severe in type at one period and milder at another. Speaking broadly, infection is ordinarily derived from one person and passed on to another by direct or indirect means, but there are exceptions, e.g., rabies, and we have no knowledge how any given infectious disease originated."

This extract also serves to show that he has a pleasing readable style by which we may gather all there is to be learnt in the book without having to expend most of our mental energy in trying to find what the author means. Here is no dryasdust's tome from which such things of value as it may contain have to be dug or hewn, but a readable volume eminently suited for taking out of our pocket and reading in one of those lengthy journeys by tube or bus down to the hospital which a worthy Board has planted in some spot perhaps pleasing, but certainly inaccessible.

It may be worthy of consideration to the philosophic student to study how it is that the subject of infectious disease has resulted in writings above the average of those found in medical literature, witness in addition to the work before us Sir Frederick Taylor's description of the child with whooping cough and by the "classical work on Smallpox" by a Guy's man whom Dr. Thomson calls his "brilliant friend the late Dr. T. F. Ricketts."

It is impossible in a short review to discuss every point raised even by a small book such as this. I will therefore merely touch upon one or two points.

Great stress is laid upon the importance of Koplik's spots in the diagnosis of measles. "Koplik's spots occur in about 98 per cent., but in about 16 or 18 per cent. they are not too easy to see and in some exceedingly difficult." It is of course much easier for the medical officer at a fever hospital, who can examine a patient over a period of two or three days to observe these spots than it is for us working at outpatients' to do so, but for all that, the examination of the inside of the cheek of practically every child suffering with a coryza will probably enable us more often to attain to Dr. Thomson's ideal of diagnosing measles on every possible occasion before the eruption occurs.

"In the diagnosis of diphtheria the value of bacteriological findings has been greatly exaggerated, and awaiting these findings has had an appreciable influence in maintaining the death rate." Dr. Thomson urges that the diagnosis of diphtheria is a clinical matter and that in a suspicious case the administration of antitoxin must never be delayed in order to await the result of the swab. The swab should be used for confirmation of diagnosis rather than as a piece of evidence in making the diagnosis. The reason for this is that the administration of antitoxin within the first 24 hours of the disease will probably save the life of the patient, whereas the delay even of 24 hours increases the mortality enormously.

"Much avoidable loss of life is caused by this disease, and the present mortality rate is no subject for congratulation, but rather one for sorrow and regret. The time has more than come when everyone should put forth the utmost effort to educate not only medical but public opinion as to the grave danger to life from diphtheria, and the comparative ease by which it can be averted."

Dr. Thomson gives two methods of desensitising which are somewhat simpler than those in use at Guy's.

It is interesting to note that in the treatment of mumps he advises that patients should be put to bed. There is perhaps a tendency to treat this disease too slightly.

Adventures in Tripoli. By ERNEST H. GRIFFEN, D.S.O., M.C. Published by Philip Allen. *Price 10s. 6d.*

WHATEVER our creed, we are all sun-worshippers instinctively abhorring the princes of darkness. And, like the evil generation we are said to be, we constantly beseech our god for a sign of himself, so that when his eye beameth not upon us our world is but one slough of despond, and the

reflection of glamourous city-life is to be found only in the glossy ribbons of mire which overlie the pavements. At such times we begin to suspect that even our "precious stone set in the silver sea" is of paste—so weakly does it scintillate."

Ultimate causes are difficult threads to unravel, but it was on account of bad weather and a consequent pilgrimage to sunnier climes that Dr. Griffen (an old Guy's man) abandoned this isle and first came to hear of a vacancy as Surgeon in the British Red Cross Society that was to begin his adventures in Tripoli, where, in 1912, war was being waged by Italy against the Arabs and Turks.

But perhaps the most memorable of all these adventures happened before Dr. Griffen arrived in Tripoli. At Sfax, difficulties arose as to obtaining a boat to Ben-Gardane, the starting point for caravans issuing into Tripoli, so that the author had at length to embark on a 30-ton sailing-boat, manned by an unassuring crew of cut-throat Arabs under the Captainship of one, Abboussalam Boussin, whose idea of making an appointment was never more precise than, "to-morrow, please God." Often, it appeared God was displeased, for "to-morrow" had no specific temporal meaning, but was used rather as a term to placate troublesome foreigners. The description of the storm which fell upon them out at sea, and of their peril is extremely well done, constituting one of the most vivid passages of the book.

"Night fell rapidly, and the darkness was intense; it was impossible to see anyone even a couple of yards off, and all passing to and fro on the deck had to be done by the sense of touch and with extreme caution. For a time I made my headquarters at the foot of the mainmast, but feeling how it quivered in its socket, and fearing that it might fall at any moment, I abandoned it for anything I could find. Then I clung on to the edge of the tarpaulin nailed over the opening of the hold, but the searching wind even found its way under that and threatened to tear it away. It now began to thunder, and the lightning vividly illuminated the scene; St. Elmo's fire played about the mast-head, and a fierce wind moaned and whistled through the tangled rigging. The phosphorescence of the water added a weird touch to the picture, as when the waves dashed against objects on the deck they left for a moment splashes of greenish light. . . . The Captain, having placed the tiller in the hands of an old sailor made his way cautiously towards me and shouted something in Arabic. I shook Ali and asked, "*Qu'est-ce qu'il dit, Ali?*" and I got the answer back pat, "*Dans quelques moments nous serons au Paradis!*"

But Paradise was not yet for the doctor, and reaching Tripolitana he declares that:—

"It does not give one the impression that it is a country worth fighting about. We marched along over hills and sand and down into valleys of sand. No vegetation could be seen, but always the same barren, sterile sand; sand, sand, and more sand. Surely no one could be quarrelling about this desert; but a loud booming sound from time to time came from the direction of the sea, where the enemy cruisers were spending the taxes wrung from an impoverished people in an endeavour to kill an alien peasantry, whose only crime was that the sand was their poor fatherland and they wished to live on it and have it administered according to their own ideas." (But surely Dr. Griffen here lets his sympathy for the natives take charge of his pen, for in his introduction he quotes the real reason for the invasion of Tripoli: "Tripoli is the key to Africa: he who possesses Tripoli is master of the whole Sudan.")

Patients who came under Dr. Griffen's care seem to have had little idea of modern medicine for:—

"All sorts of bottles were brought to receive the medicine in, many of them in a very dirty state. Some presented large earthenware vessels and asked for a dose of castor oil, while on one occasion I remember an Arab offering with grave face an unwashed sardine tin as a suitable receptacle for an eye lotion."

Nor, it seems, were the native doctors much better.

"He produced a leather bag, very similar to the sort that a shoeing smith carries, and shook a few pieces of old iron on to the dusty floor. He then threaded two large needles with cotton and laid them on a piece of sacking. He was now ready for the operation, and having refreshed himself with an enormous pinch of snuff, he knelt over the patient. Hardened as I am to the roughest sort of surgery, I must confess I shuddered as I watched the proceeding. The eye of the poorest or most depraved is a priceless, delicate object, and it seemed almost sacrilege to see it attacked by those dirty and mediaeval instruments. Still he made quite a satisfactory, job of it, and even if was unnecessarily violent, it was evident he had had plenty of experience."

"He would listen gravely to the symptoms of the case and then place a sort of branding-iron in a brazier. When this was red hot it was pressed on the flesh in the vicinity of the trouble. The loud, sizzling noise, the smell and the pain thus produced all had their effect on the patient, who would go away firmly convinced that he was on the high road to a cure." (Surely the limit of psychotherapy?)

There are many entertaining pages in this book telling of the perfect manners of Arab children, of the waywardness of camel-drivers, of the rituals of Arab meals, of those beloved by women,—the Sheikhs, of exciting ambuscades, of the value of Moslem prayer as physical exercise by virtue of the genuflexions and prostrations. One cannot help thinking, however, that the book should have contained a map of Tripoli. But the numerous photographs are exceptionally good and are a real help to the narrative.

Ophthalmology.

The Refraction of the Eye. By ERNEST CLARKE. Size Crown 8vo. Number of pages, iv. + 251. One Coloured Plate. 98 Figures in the Text. Published by Messrs. Baillière, Tindall & Cox. *Price 8s. 6d. net.*

MR. Ernest Clarke is to be congratulated on writing a book which enables C3 brains to understand the various problems of the refraction of the eye. Without having to struggle through various works on optics, promiscuously styled Elementary or Advanced—what the difference is I have yet to discover—the reader here has, if I may say so, the very entrails of the subject dished up in a palatable and fairly easily digested form.

The chapters on the treatment of the various errors of refraction—the bread and butter of eye work, are

to my mind a more masterful exposition than can be found in any of the commoner text books on Ophthalmology. It is the fault of the subject matter rather than of the book, that in parts its soporific effect is at least as potent as that of chloral.

Diseases of the Eye. By MAY AND WORTH. Size, Demy 8vo. Number of pages, viii. + 460. 22 Coloured Plates. 337 Figures in the text. Published by Messrs. Baillière, Tindall & Cox. *Price 15s. net.*

So many books written by ophthalmic surgeons, who should presumably know better, have an unpleasant trick of lapsing, at intervals, into very small print. The authors will often unblushingly make some such statement as "the smallest type used in schools should be Pica"—which being interpreted means print about as large as the headings of their chapters. If we, who read their books, are not school children, then what in the name of Helmholtz are we?

The book under review suffers only in a mild degree from this failing, and the authors do not display the oft-seen optimism of advising the reader to omit the small type at first—optimism, because any book on a special subject may consider itself highly honoured if it is read more than once by the average student.

This book is eminently readable, the general "lay-out" and coloured plates being excellent. The differential diagnosis table of acute conjunctivitis, acute iritis and acute glaucoma should be copied out and glued on to Dr. Everyman's shaving mirror (to bring in an out-Drageous simile).

The chapters on Optics are discreetly introduced after the reader is well under way—to remind him of his physics days in the opening chapter is to condemn the book to an early appearance in the Charing Cross Road at a reduced figure.

To misquote a mot of a late member of Guy's, there are books, there are blank good books, and there is May and Worth's Diseases of the Eye.

The 11th American Edition was published simultaneously with the 5th English Edition. Besides these editions in English, translations have appeared in Spanish, French, Italian, Dutch, German, Japanese and Chinese.

Students' Club Library—Catalogue of Books.

(*Concluded*).

RENAN, Ernest. The Life of Jesus. N.D.
——. The History of the Origins of Christianity. N.D.
——. Studies in Religious History. 1886.
——. Lectures on the Influence of the Institutions, Thought and Culture of Rome. 1885.
——. The History of the Origins of Christianity. Book I. Life of Jesus. N.D.
RICE, James. By Celia's Arbour. 1896.
——. The Chaplain of the Fleet. 1890.
RIDDELL, Mrs. J. H. The Head of the Firm. 3 Vols. 1892.
"RITA." The Laird o' Cockpen. 1892.
RITCHIE, David G. Darwinism and Politics. 1891.
RIVES, Amelia. A Brother to Dragons. 1899.
ROBSON, Philip A. Hockey. 1899.
ROMANES, George John. Mental Evolution in Animals. 1883.
——. The Scientific Evidences of Organic Evolution. 1882.
RONNFELDT, Harriett. The Germ Plasm. 1893.
"ROOTS." A Plea for Tolerance. 1888.
ROSSETTI, Wm. H., The Poetical Works of. 1891.
RUSKIN, John. The Crown of Wild Olive. 1890.
——. The Eagles Nest. 1891.
——. "Unto this Last." 1890.
——. Sesame and Lilies. 1890.
——. The Queen of the Air. 1890.
——. Munera Pulveris. 1886.
——. Time and Tide by Weare and Tyne. 1886.
——. Frondes Agrestes. 1890.
——. The Two Paths. 1887.
——. The Stones of Venice. 1890.
——. Modern Painters. 1891.
——. The Ethics of the Dust. 1890.
——. The Seven Lamps of Architecture. 1890.
RUSSELL, Earl, Speeches of, 1817—1841, and from Dispatches, 1859—1865. 2 Vols. 1870.
RUTHERFORD, Mark. Miriam's Schooling. 1890.
——. The Evolution in Tanners Lane. 1887.
——. The Autobiography of, and Mark Rutherford's Deliverance. 1889.

SALE, George. The Koran, commonly called the Alkoran of Mohammed. 1890.
SAND, George. Countess of Rudolstadt. N.D.
——. The Miller of Angibault. N.D.
SCHILLER, Friedrich, Life of, by Thomas Carlyle. N.D.
SCHILLER'S Poems and Ballads, A.D. 1780—A.D. 1831. 1889.
SCHOPENHAUER, Arthur. The World as Will and Idea. 4 Vols. Translated by R. B. Haldane and J. Kemp. 1891.
SCOTT, Robert H. Elementary Meteorology. 1890.
SCOTT, Wm. B. The Complete Poetical Works of Lord Byron. 1887.
SCOTT, Sir Walter. The Poetical Works of. 1853.
——. Rob Roy. N.D.
——. The Antiquary. N.D.
——. Count Robert of Paris. N.D.
——. Guy Mannering. N.D.
——. Anne of Geierstein or The Maiden of the Mist. N.D.
——. The Fair Maid of Perth or St. Valentine's Day. N.D.
——. Woodstock or The Cavalier. N.D.
——. The Talisman. N.D.
——. The Betrothed. A Tale of the Crusaders. N.D.
——. Redgauntlet. N.D.
——. St. Ronans Well. N.D.
——. Quentin Durward. N.D.
——. Peveril of the Peak. N.D.
——. The Fortunes of Nigel. N.D.
——. The Pirate. N.D.

——. Kenilworth. N.D.
——. The Abbot, sequel of the Monastery. N.D.
——. The Monastery. N.D.
——. Ivanhoe. N.D.
——. The Bride of Lammermoor. N.D.
——. The Heart of Midlothian. N.D.
——. The Black Dwarf, and A Legend of Montrose. N.D.
——. Old Mortality. N.D.
——. Waverley. N.D.
SCOTT, Clement. Poppy Land. 1899.
SEELEY, J. R. The Expansion of England. 1888.
——. England and Her Colonies. 1887.
Selbourne, The Natural History and Antiquettes of. By Rev. Gilbert White. 1890.
SEMPER, Karl. The Natural Conditions of Existence as they affect Animal Life. 1890.
SENIOR, W. Antipodean and Foreign Fish. 1895.
SERAS, Matilde. Fantasy. Translated from Italian by Henry Harland and Paul Sylvester. 1891.
SETH-SMITH, C. E. Yachting. 1894.
SEWELL, E. H. D. Rugby Football up to date. 1921.
SHAKESPEARE. A Critical Study of his Mind and Art, by Edward Dowden. 1889.
——, William, The Works of, by Rev. Alexander Dryce. 10 Vols. 1886.
——. The Poems of. N.D.
Shakespeare's Handwriting, by R. W. Leftwich.
SHARP, Wm. Dante Gabriel Rossetti. 1882.
SHAW, G. Bernard. Fabian Essays in Socialism. N.D.
SHEARMAN, Montague. Athletics and Football. 1889.
SHELLEY, Poems of. 1887.
——. Mrs. Frankenstein, or The Modern Prometheus. 1891.
SHERIDAN'S Plays. A.D. 1759—A.D. 1779.
SIMON, G. Eug. China: Its Social, Political, and Religious Life. 1887.
SINCLAIR, Arthur. Swimming. 1893.
SHIPLEY, A. E. Essays on Heredity, by Dr. August Weismann.
SINGLETON, Capt., The Life and Adventures of, by Daniel Defoe.
SKIPSEY, Joseph. The Poetical Works of Edgar Allan Poe, with a prefatory notice, biographical and critical. N.D.
SKOTTOWE, B. C. A Short History of Parliament. 1886.
SLADEN, Douglas B. W. Australian Ballads and Rhymes. 1888.
SMART, Hawley. The Master of Rathkelly. 1889.
——. The Plunger. 1891.
SMITH, J. Nicholson. Hockey. 1899.
SMITH, John Pye. The Scripture Testimony to the Messiah: concerning the Person of Christ. 3 Vols. 1829.
SMITH, Adam. An Inquiry into the Nature and Causes of the Wealth of Nations. 1890.
SMOLLETT, T. Humphry Clinker. N.D.
——. The Adventures of Peregrine Pickle. N.D.
——. The Adventures of Roderick Random. N.D.
SOUTHEY, Robert. The Life of Nelson. N.D.
——. The Works of, by Wm. Cowper. 4 Vols. 1854.
SPARLING, H. Halliday. The Life, Adventures and Piracies of the famous Captain Singleton, by Daniel Defoe. 1887.
SPENSER, Edmund, The Poetical Works of. 5 Vols. N.D.
SPENSER, Herbert. The Man versus The State. 1892.
——. The Study of Sociology. 1889.
——. The Principles of Sociology. 1892.
——. First Principles. 1890.
——. Education. N.D.
SPRIGGE, S. Squire. The Life and Times of Thomas Wakley. 1899.
STANLEY, A. P. Lectures on the History of the Jewish Church. 3 Vols. 1890.
——. The Life and Correspondence of Thomas Arnold, D.D. 1890.
STARCKE, C. N. The Primitive Family. 1887.
STEEL, A. G. Cricket. 1889.
STEPHEN, Leslie. The Life of Henry Fawcett. 1885.
STEEVENS, C. W. Things Seen: Impressions of Men, Cities and Books: Memoir by Henley 1900.
STERLING, John, Life of, by Thomas Carlyle. N.D.
STEVENSON, Robert Louis. The Wrong Box. 1889.
——. The Wrecker. 1892.
——. New Arabian Nights. 1892.
——. The Black Arrow. 1888.
——. Catriona, A sequel to "Kidnapped." 1893.
——. Strange Case of Dr. Jekyll and Mr. Hyde. 1888.
——. The Master of Ballantrae. 1889.
——. Treasure Island. 1890.
——. Kidnapped, Memoirs of Adventures of David Balfour 1751.
——. (Fanny Van de Grift). The Dynamiter. 1885.
STEWART, Balfour. The Conservation of Energy. 1890.
SUFFLING, Ernest R. The Land of the Broads. N.D.
——. How to organize a Cruise on the Broads. 1899.
SUFFOLK, Earl. Racing. 1889.
SULLIVAN, Sir Edward. Yachting. 1894.
SWIFT, Jonathan, The Poetical Works of. 3 Vols. N.D.
——. Gulliver's Travels. N.D.
SWINBURNE, Algernon Charles. Poems and Ballads. 1889.
SYNTAX, Doctor. His Three Tours in search of the Picturesque, of Consolation, of a Wife. 1890.

TAINE, H. A. History of English Literature. Translated by H. Van Laun. 1886.
TATE, Wm. J. East Coast Scenery. 1899.
TAYLOR, Henry. Philip Van Arteveldt. 1883.
TAYLOR, Isaac. The Origan of the Aryans. N.D.
TEBBUTT, C. G. Bandy. 1892.
——. Skating. 1892.
TENNYSON, Alfred, Lord. The Works of. 1890.
THACKERAY, William Makepeace. Vanity Fair. 1891.
——. The Works of. The Great Hoggarty Diamond Memoirs of Mr. C. J. Yellowplush, and Burlesques. 1891.
——The Works of. The Adventures of Philip, to which is now prefixed A Shabby Genteel Story. 1888.
——. The Works of. The History of Henry Esmond, also the Memoirs of Barry Lyndon. 1890.

——. The Newcomes. 1890.
——. The History of Tredennis. 1890.
——. The Works of. The Book of Snobs. 13 Vols. 1891.
——. The Works of. Miscellaneous Essays, Sketches and Reviews, Contributions to Punch. 1889.
——. The Works of. Roundabout Papers. The Four Georges, and The English Humourists. 1891.
——. The Works of. The Christmas Books of Mr. M. A. Titmarsh. 1888.
——. The Works of. The Virginians. 1890.
——. Catherine, Lovel the Widower, Denis Duval, Ballads, etc. 1889.
——. The Works of. The Paris Sketch Book, The Irish Sketch Book, Notes of a Journey from Cornhill to Grand Cairo. 1889.
"THALASIA." Yachting. 1894.
THOMAS, Ernest Chester. History of Materialism and Criticism of its Present Importance. 3 Vols. Translated. 1890.
——. History of Materialism and Criticism of its Present Importance. Translated. 1880.
THOMAS, Annie. Kate Valiant. N.D.
THOMSON, James, The Poetical Works of. 2 Vols. N.D.
——. The Evolution of Sex. N.D.
——. The Voyage of "The Challenger." The Atlantic 1873, and Early Part of the Year 1876.
TOCQUEVILLE, Alexis de. The State of Society in France before the Revolution of 1789, and the Causes which led to that Event. Translation by Henry Reeve. 1888.
TOLSTOI, Count Lyof N. Childhood, Boyhood, Youth. Translated from Russian by Isabel F. Hapgood. N.D.
——. Anna Karénina. Translated by Nathan Haskell Dale. 2 Vols. N.D.
——. War and Peace. Translated from Russian by Nathan Haskell Dale. 4 Vols. N.D.
——. Ivan Ilyitch. Translated from Russian by Nathan Haskell Dale. 1889.
——. Work While Ye have the Light. 1891.
TOOKE, W., The Poetical Works of, by Charles Churchill; Memoir by James L. Hannay. N.D.
TOYNBEE, W. Songs of Béranger. N.D.
TROLLOPE, Anthony. The Small House at Allington. 1877.
——. Barchester Towers. 1891.
——. The Warden. N.D.
——. Framley Parsonage. 1890.
——. Phineas Redup. N.D.
——. Phineas Finn, The Irish Member. N.D.
——. Doctor Thorne. N.D.
TUNZELMANN, G. W. de. Electricity in Modern Life. N.D.
TURGÈNIEFF. Ivan Dimitri Roudine. N.D.
——. Fathers and Sons. N.D.
——. Virgin Soil. N.D.
——. Smoke. N.D.
TYLOR, Edward B. Anthropology. 1889.
TYNDALL, John. Fragments of Science, Essays, Addresses and Reviews. Vol. 1. 1889.
——. Faraday as a Discoverer. 1884.
VALERA, Juan. Doña Luz. Translated from Spanish by Mary J. Serrans. 1893.
Pepita Jimenez. Translated from Spanish. 1891.
VANE, Capel. The Desire of the Moth. 2 Vols. 1895.
VAUGHAN, David James. The Republic of Plato. Translated. 1890.
VYNON, Frederic. In a House of Pain. 1894.
VILLARI, Pasquale. The Life and Times of Nicolo Machiavelli. 1892.

WAKLEY, Thomas, The Life and Times of, by S. Squire Sprigge. 1899.
WALDO. Modern Meteorology. 1893.
WALLACE, Alfred Russell. Darwinism: an exposition of the Theory of Natural Selection, with some of its applications. 1890.
——. The Malay Archipeligo. 1890.
WALLAS, Graham. Fabian Essays in Socialism. N.D.
WALPOLE, Horace. Anecdotes of Painting in England. 3 Vols. 1888.
WALSINGHAM, Lord. Shooting: Moor and Marsh. 1889.
——. Shooting. 1889.
WALTON'S, Izaak Lives; Butler's Hudibras; Plays from Moliere, A.D. 1663—A.D. 1733. 1889.
WARD "Artemus". The Complete Works of Charles F. Browne, better known as Artemus Ward. 1889.
WARD, John., by Margaret Deland. 1889.
WARD, Mrs. Humphry. The History of David Grieve. 1893.
——. Robert Elsmere. 1892.
WATSON, G. L. Yachting. 1894.
WATSON, Alfred. Steeple-chasing. 1889.
WEIR, Capt. Robert. Riding. 1891.
WEISMANN, August. The Germ Plasm. 1893.
——. Essays on Heredity. 1891.
——. Essays on Heredity and Kindred Biological Problems. 1892.
WELLDON, J. E. C. The Politics of Aristotle. 1888.
——. The Rhetoric of Aristotle. 1886.
WEBB, Sidney. Fabian Essays in Socialism. N.D.
WHITE, Henry Kirke, The Poetical Works of. N.D.
WHITE, Rev. Gilbert. The Natural History and Antiquettes of Selbourne. Edited by Sir Wm. Jardine. 1890.
WHITMAN, Walt, The Poems of. 1887.
——. Specimen Days in America. 1887.
WILDE, Oscar. Intention. The Decay of Lying. Pen, Pencil and Poison. The Critic as Artist. The Truth of Masks. 1891.
WINTWORTH, Catherine. Christian Singers of Germany. N.D.
WITHAM, T. Maxwell. Figure Skating. 1892.
WOOD, Mrs. Henry. East Lynne. 1890.
WOODGATE, W. B. Boating. 1889.
WOODWARD, C. M. Manual Training in Education. N.D.
WORDSWORTH, Wm. The Poetical Works of. 6 Vols. 1849.
——. The Poetical Works of. 1849.
——. The Prelude, or The Growth of a Poet's Mind. 1851.
WRIGHT, Thomas. The Travels of Marco Polo. 1890.
WYATT, Thomas, The Poetical Works of. N.D.
YOUNG, E., The Poetical Works of. 2 Vols. N.D.
ZACHARIAH, O. Travel in South Africa. 1921.
ZOLA, Emile. The Dream. 1893.
——. The Downfall. 1893.

Sport.

Rugby.

Guy's v. London Scottish.

THOUGH there was the great attraction at Twickenham on Saturday, November 15th, of London v. New Zealand Tourists, a good number of spectators saw Guy's defeat the London Scots by 16 points to 6. One gets tired of reading accounts in the daily papers after a victory on our part; it is always carefully pointed out that Guy's defeated a weak side. We have beaten Catford, Gloucester, Harlequins and London Scottish, and excepting the Catford match, the weakness on the particular day has always been emphasised and never a word about the strength or weakness of the Guy's XV. on the particular occasion. Against the Scottish P. B. D. Spence, C. L. Steyn, B. G. Scholefield and N. M. Holloway were all away. G. Clark played full back, W. Hops came into the half back position and J. Poppewell and J. Radford filled up the pack and we won. This fact does great credit to our side and we congratulate them on a win which was in every way deserved.

Just at first the home side were all over us, carrying play into our "25" with those determined foot rushes for which the Scotch are noted. Clark never hesitated and manfully went down to the ball, keeping his line safe. Play soon got to the other end, our forwards with Cameron well to the fore asserting themselves, and Preen, getting round the scrum, very cleverly landed a try for the Guy's Captain to convert. Rennie almost landed a penalty, then Jacot, the old Harlequin player, nearly scored. A little later he cross-kicked and Gray secured to gain a try for our opponents, which was not added to.

After half-time our threequarters were very frequently on the move. They all played well and Preen had a great day as "pivot man." He started the movement, which led up to the next score. Mostert the last to receive gained a try too wide out for extra points to be added. A little later Preen cut through on his own. Running very fast, he deceived several Scotsmen, and scored in a good position for Van Schalkwijk to goal. Another cross-kick by Jacot, who seems to specialise in this sort of thing, and this time J. B. Risk a forward, got up to secure the ball and cross for an unconverted try. Our forwards were still doing quite well and seemed in better training than in some recent games. After all it is physical fitness which tells no end in Rugby Football. The final try came from Van Schalkwijk. He followed up at a great pace and gained a thoroughly good three points, in the closing minutes of the game.

Clark did quite well at full back. He is proving very useful in various positions. Preen we have mentioned, also the threequarters. The play of Hutchinson improves with experience. Schabort and King-Turner were also good. The forwards still want to shove in more concerted fashion, and in the loose they must show more "devil" and vim.

Result.—Guy's 2 goals 2 tries (16 points); London Scottish 2 tries (6 points).

Guy's Team.—G. Clark; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk G. R. Mostert; W. Hops, V. R. Preen; J. Durr, G. G. Cameron, W. Myburgh, J. W. Schabort, E. W. J. R. Poppewell, J. Radford, G. King-Turner.

Guy's v. London Welsh.

AT Honor Oak Park on Saturday, November 22nd, London Welsh were our opponents. It was a good afternoon for football, but the game was not up to standard. It was one of those games in which we never got going and one feels sure the Welsh will forgive me, if I say that they seemed obsessed with the idea that we must be prevented from scoring rather than that they should go out to score themselves. Quite early in the game a very fine round of passing left the ball with Fellowes-Smith, who put on his best pace and, though partially tackled, got over in the corner. Hutchinson's endeavour to goal was good, but not quite successful. Now, you have all the score; by one try to nothing did the Hospital win. All through the remainder of the first half we more than held our own, yet nothing accrued in the way of further points. The ball was coming slowly from the scrum and though some would blame Hops for being slow, the Welsh forwards were coming round right on top of him every time. It was most difficult to get the leather away clearly to V. R. Preen, who also was handicapped. Perhaps the Welsh forwards were offside, anyhow the Referee did not think so. They had two International forwards among their pack, Marsden-Jones and Gwyn Francis. Our old friend and opponent in many matches, W. L. Michael, was not playing. Guy's players, recently gone down will remember this very virile forward. The kicking of our centres was rather excessive and the punt and follow up should be lofty and well placed. Some of it was low so that no one could be up as the ball fell, and placed easily within reach of Roberts, the Welsh back.

The second half was not very much in our favour. The Welsh had the better of it, though Van Schalkwijk and Preen both looked likely scorers on more than one occasion. The visitors, instead of going for the line, took drops at goal, one of which hit the post. It was a near thing for us. In ding-dong fashion the game proceeded, nothing however came to either side. Going back to the first half there were two occasions when it seemed we had scored, once Cameron looked a certain scorer, but a drop out was ordered and again when Durr ended a dribble by apparently touching down, the Referee awarded another drop as a Welshman touched first.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. Clark; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, E. W. Hutchinson, G. G. Cameron, J. W. Schabort, H. de Wet Vorster, W. H. Myburgh, W. Poppewell.

Guy's v. Blackheath.

AT last we have won a match and we do not read that we overcame a weak side, in every Sunday and Monday paper. It really is most refreshing to notice that Steyn's continued absence is noted and that Blackheath, whose area of choice is practically limitless, had a strong side out. C. W. Parker was with them, and so ought A. E. Beith to have been, but he had to scratch. These are two of Bart.'s best forwards, at least they were last year. Guy's had a very excellent representation as well. It will be seen that N. M. Holloway having successfully passed his recent Final, again took his place among the forwards, and so also did E. E. Neser.

It was a great game and we won by 2 tries to nil. The ground was very heavy indeed and no wonder, for practically all Friday night it rained in torrents. Some visitors expressed surprise that the turf was so soaked; they do not know our Honor Oak Park. Just for a little while the ball kept fairly fit to handle, but very soon one could only compare it to greasy soap. For all that, our back division handled it remarkably well and quite early a splendid get away by Cameron left the ball with Fellowes-Smith, but it had been passed forward. The pack was doing well, splendidly in fact. They got the ball in the tight and, in the loose, they beat the opponents—aided by some fine kicking by the centres. Kept well in their own half, Blackheath were almost entirely on the defensive. About midway through the first half of the game, after some good passing, Graham-Davies got away and passed to Fellowes-Smith. The wingman took a high and difficult pass and gained a try wide out. Hutchinson, with the heavy and greasy ball, could not quite convert. Before the interval Van Schalkwijk gained another try and a very fine one it was. He got past several Blackheath men by side stepping and ended up right behind the posts. Graham-Davies failed with the kick.

The second half of the game was not very full of incident. Our opponents had decidedly a larger share of the game, yet they could not penetrate our defence. P. D. B. Spence was at his very best, fielding under the existing difficulties with great accuracy. To finish up with, indeed all through this latter portion of the game, our pack carried out many loose rushes, with much more dash than in the recent games. These always looked dangerous for our visitors, but they defended well and no man spared himself. Blackheath had T. Lawton at fly half, but he was too well looked after to be at all in the picture, and again thanks to the good shoving of the pack, we generally got the ball. It was good to see Finnemore back in the team again. The whole side played extremely well and exactly the proper football for the prevailing conditions. One hesitates to single out any special player when all did so well.

Result.—Guy's 2 tries (6 points); Blackheath nil.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, J. W. Finnemore; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, E. E. Neser, N. M. Holloway, G. G. Cameron, W. Myburgh, J. W. Schabort, E. W. Hutchinson.

The Swimming Club.

THE Annual Dinner of the Swimming Club was held on Tuesday, November 25th, at Maxim's Restaurant, with Sir Alfred Fripp, the President, in the chair.

Like its predecessors, the dinner was excellent, and, towards the end, an orchestra, consisting of one piano and one violin, strayed in and played us "some selections from their repertoire." Then, as we leant back in our chair, groaning mentally, if such a thing is possible, at the thought of the coming speeches, Sir Alfred Fripp delighted the company by suggesting that, instead of the usual form of torture, the speechmakers should be let off with a story—a story which might, or might not, be suited to the taste of medical students, but which *must* have the saving grace of wit. The suggestion was carried unanimously, and Mr. J. N. Martin, the obvious choice, was called upon to lead the way.

Many excellent anecdotes, all more or less witty, and all eminently suited to the medical taste, were added to our collection, but it was generally agreed that the palm must go to Mr. Day, of Bart.'s (enquiries to be directed to Mr. J. Simons).

Mr. John Simons proposed a hearty vote of thanks to Sir Alfred Fripp, who has been our President so long, and has always taken a great interest in the affairs of the Club.

About twelve o'clock, the company dispersed, and we "wearily plodded our homeward way" (Omar Khayyam—By H. G. Wells).

Among our visitors were Sir Alfred Fripp, J. Lewin Payne, A. W. Ormond, T. B. Layton, Graham Marshall, George Day, and Ginger's New Hat.

United Hospitals Hare & Hounds.

Five Miles Handicap.

THIS was held on the 19th November, at West Wickham. The men were dispatched according to their handicaps, scratch men starting last. Stewart ran well and was not troubled, but the race home between the next four was very exciting.

Dr. H. A. Munro judged the race by himself as Mr. A. R. Thompson was unfortunately prevented from attending.

	Hand. Time.	Start.	Actual Time.
1, G. R. L. Stewart (Guy's)	42.14	5½ Min.	38.44
2. C. S. Wise (Bart's.)	43.25	3⅓ "	37.45
3. T. M. Calhaem (Guy's)	43.32	3 "	37.32
4. M. E. M. Jago (Guy's)	43.33	Scr.	34.33
5. M. D. Young (St. Bart's.)	43.47	5½ "	40.17
6. W. R. C. Spicer (Guy's)	44.43	9 "	44.43
7. J. W. Storey (U.C.H.)	46.23	2¼ "	39.38
8. R. C. Lightwood (K.C.H.)	49.35	Scr.	40.35
9. J. W. Thornton (K.C.H.)	49.36	4½ "	45.6

Match versus the Imperial College of Science.

THIS was held at Wembley on Wednesday, November 26th, and resulted in a win for the College by 5 points on the "Varsity" system. The Hospitals, however, were only poorly represented.

1. M. E. M. Jago (Guy's), 28 mins. 12 secs.
2. W. W. Darley (Bart.'s), 28 mins. 27 secs.
3. Spencer (I.C.), 28 mins. 48 secs.
4. Vick (I.C.), 28 mins. 53 secs.
5. Harrison (I.C.), 29 mins. 4 secs.
6. Sams (I.C.),
7. Angier (I.C.).
8. Moritz and Clealand (I.C.).
10. Clealand (I.C.).
11. T. M. Calhaem (Guy's).
12. C. S. Wise (Bart.'s).
13. G. R. S. Stewart (Guy's).
14. J. E. Snow (Bart.'s).

Imperial College.—3, 4, 5, 6 and 7=25 points.

U. H.H. & H.—1, 2, 8, 9 and 10=30 points.

Hospital Information, etc.

The Emily Gertrude Pye-Smith Bed Endowment Fund.

THE following contributions have been received since the appeal for this fund appeared in the GAZETTE of October 11th, making a total of £312 8s.:—

	£	s.	d.
Miss Dreyer	1	1	0
Frederic Durham, Esq.	1	1	0
—. Foulger, Esq.	10	0	0
Mrs. Jacobson (second donation)	1	0	0
W. M. Mollison, Esq.	3	3	0
W. H. Ogilvie, Esq.	1	1	0
Mrs. David Paton	1	1	0
Dr. Maurice Shaw	1	1	0
Lady Strathcona	20	0	0
Ormond Yearsley, Esq.	2	12	6

On Thursday afternoon, November 20th, about 25 of the contributors were present in Victoria Ward to hand over the balance required to complete the endowment of the bed.

Lady Hale-White, Vice-Chairman of the Ladies' Association, in the absence of Mrs. Cosmo Bonsor, handed the cheque of £450 to Mr. Eason, representing the Treasurer of the Hospital.

Notice.

To Guy's Men of the '70's, '80's and '90's.

A LIST of Past Editors of the GAZETTE is being compiled for inclusion in the Bicentenary Number. The names of the earlier Editors are hard to find and Guy's men are asked to send to the present Editor, within the next few days, any corrections or omissions in the following list, which they can guarantee:—

The name of Editor and Date of office.
T. Cattell Jones, Oct. 1872—Aug. 1873.
Henry Clarke, Oct. 1872—Oct. 1873.
Edward O. Giblin, Oct. 1872—April 1874.
Frank T. Paul, Oct. 1873—June 1874.
John Utting, April 1874—Oct. 1874.
A. Piggott, June 1874—Oct. 1874.
A. M. Turner, June 1874—Oct. 1874.
I. H. Poland, June 1874—Oct. 1874.
R. E. Carrington, ?—?
C. H. Downes, ?—Nov. 1879.
W. L. Braddon, Jan. 1887—June 1887.
C. J. Whitby, June 1887—Dec. 1887.
G. Bellingham-Smith, Jan. 1888—July 1888.
H. J. Campbell, Aug. 1888—Dec. 1888.
A. S. Wohlmann, ? 1891.
G. Mackeson, ? 1891.
Frederick Gowland Hopkins, ?—June, 1894.
H. J. Spon, July 1894—Aug. 1895.

Specialities.

"Angier's Emulsion."

THE ANGIER CHEMICAL CO., LTD.,
36, Clerkenwell Road, E.C.1.

WHEN the use of petroleum is indicated, it cannot be administered in a better form than Angier's Emulsion. In this preparation the oil is specially refined and purified.

Combined hypophosphites of lime and soda, with pure glycerine are also added, so that it is creamy and palatable, being almost tasteless. Even delicate stomachs can retain it, nor does it disturb digestion, on the contrary it facilitates it. It also maintains nutrition, stimulates peristalsis, and acts favourably on all the mucous membranes.

Angier's Emulsion strengthens and re-vitalises the human system, and checks tissue waste. Each fluid ounce contains thirty-nine and one-third per cent. of specially purified petroleum, nine grains of combined hypophosphites of lime and soda, with chemically pure glycerine.

The microscope shows the oil globules very minutely and evenly subdivided which render it capable of being mixed with water or other fluids.

Its value in cases of tuberculosis, bronchitis, pneumonia, pleurisy, influenza, gastro-intestinal disorders, chronic constipation, wasting diseases, nervous debility and anæmia is well known and testified by numbers of testimonials from doctors of high repute, who prescribe it for their patients.

Further particulars will be gladly sent to Medical Men on application to the above address.

Sun-Ray Arc Lamps for Actino-Therapy.

THE WESTMINSTER ENGINEERING CO., LTD.,
Willesden Junction, N.W.10.

THIS lamp gives a light of great intensity, rich in ultra-violet rays, also in luminous and heat rays. The proportion of ultra-violet light can be increased or lessened by the use of varying electrodes.

It is invaluable for giving "sun" baths, as the carbon light fully replaces sunlight, and is far superior to the mercury arc light. In the non-operative treatment of Tuberculosis, and also of Lupus Vulgaris, these sun baths are indispensable.

It is used at The London, University College, St. Thomas's, etc., also in most of the large Provincial Hospitals, Infirmaries and Sanatoria, where it is found most satisfactory.

Its efficiency is tested by Doctors in *The Lancet, The British Journal of Experimental Pathology,* etc., etc., who speak from their own personal experience.

Births.

CLAPHAM.—On the 12th October, 1924, at a Nursing Home in Clifton, Helen Grace (née Trewhitt), the wife of S. C. Clapham, The Lawn, Martock, Somerset, a son.

HILL.—On November 15th, 1924, to Eleanor (née Finnemore), wife of F. Rowland Hill, a son.

Marriage.

LANCHESTER—HIGGINBOTTOM.—On October 12th, 1924, at St. Thomas Church, Rondebosch, Cape Town, John Lanchester, L.D.S., of West Auckland, Co. Durham, England and Gatooma, Southern Rhodesia, to Dora Higginbottom, of Walkden, Manchester.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXVIII. *December 20th, 1924.* *Number 951*

PASSIM

THIS is the last number of Volume 38 of the Guy's Hospital GAZETTE, and on the occasions of last numbers of volumes it was the habit, in the seventies and eighties, to review the past year's activities and the Future in articles, entitled "Prospect and Retrospect." We have been retrospecting in a vague, dreamy kind of way, wondering for what outstanding events the year of 1924 will live on in History. For the overthrow of the Labour Government? It is very unlikely; for the Labour Government will return and be defeated and return again, until the Labour furniture vans moving the Labour Ministers into or out of Downing Street will become as commonplace and unremarkable as similar happenings to the other Parties. For the visit of the New Zealand football team? It is of interest to comparatively few and will be remembered more than likely from its association with one name, for instance the name of Mr. Nepia, just as the previous New Zealand team is now associated chiefly with the name of "Teddie" Morgan. For the terrible Railway Disaster? It is already forgotten. For the Kashmiri Love Song? It holds the morbid imagination but for a day. For what then will 1924 be famous in history? And we think the answer is "For its Miracles."

This has indeed been a year of miracles. For some time the daily newspapers devoted pages and pages to the recounting of marvellous cures, encompassed by prayer and faith. It is not for us to throw doubt on the strict authenticity of these accounts or to express disbelief in the miracles. We have often thought that could the canonisation of Thomas Guy be brought about with sufficient ceremony and publicity, and could the healing properties of his tomb be made manifest, perhaps even through the medium of these very columns, then at last would the burdens of the Out-Patients' Officers be lightened and the sun rise on the rejuvenation of the "Chronics." Association, education and environment will together induce faith in anything, and with faith all things are possible.

There is in Padua, a church, vast, mysterious and dim, and in it is the tomb of St. Anthony, the Patron Saint of Healing. To the artist, the "life" and "movement" of the Saint's sculptural history are themselves miracles of beauty; to the faithful, to touch the tomb is

to bring about a miracle of healing; and to the curious but sympathetic visitor the whole scene is a miracle of faith. To this tomb come daily thousands of pilgrims, some diseased, some crippled, who, filing round with clicking rosaries, reverend countenances and prayerful, murmuring lips, lay their hands on it and are cured. Not all are cured perhaps, but many are, especially the children, and as silent witnesses of the Saint's healing mercy are seen piles of discarded crutches and small spinal jackets. It would be interesting and valuable to investigate the after histories of these cripples, cured by faith. Had they already lost the need for their orthopædic appliances before their pilgrimage, but lacked the faith to discard them, or were these appliances thrown aside before the "cure" to the glory of the parents' faith and the detriment of their children's spines? Or, lastly, were they indeed cured miraculously? We cannot say. We only know that the sight of this great faith is awe-inspiring and induces a half-ashamed prayer that it might not prove misguided.

The Year of Miracles! We tried to recall some, of which we had a more intimate knowledge and at once there came into our mind the often-forgotten miracle of Christmas. For if ever there was a time when miracles take place, when the whole nature of man becomes better nature, when self is forgotten and youth remembered, that time is Christmastime. Life ceases to be grim and becomes a Grimm's Fairy Tale; laughter becomes good-natured and men may smoke in the wards. It is the time set apart for children, and their elders, in preparing the Christmas celebrations, find that they are children too and that it is set apart for them. In no place is this more true than at hospital. Every man and woman, priviledged to be there, works hard and sleeps deeply, but work has become play and the sleep is as much one of happiness as of exhaustion. No one can escape; no one ever tries. Those most retiring of men, The Residents, paint their faces and oil their voices and for hours imagine that they are singing in tune, to the delight of their audiences and the great benefit of their souls. Thus it has always been and from the GAZETTE for December 29th, 1894, we cull this most exquisite bloom of Christmastide: "On to Luke, where Fagge sang 'The Old Folks at Home' with much feeling."

It is to wish you all the Merriest of Christmasses that we write this last "Passim" of the year. May you feel that you are part of this great family of Guy's men and women. If you are still at the Hospital, give your hand to the Spirit of Christmas Present, enjoy the concerts, forget that the fresh blossoms of fairyland but barely conceal the walls of the wards, play with the children, don't be a gooseberry and, if you are so inclined, change the feather in your hat for a sprig of mistletoe and be happy. And if, through no fault of your own, you are not still at the Hospital, but many miles away, even in South Africa where Christmas falls in mid-summer, still think just once of your old Hospital, drain a bumper and, if you cannot sing, at least think of the Old Folks at Home with much feeling.

Guy's Hospital Bicentenary Appeal.

Notice to Old Guy's Men and all Collectors.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, President of the Hospital has graciously consented to be present at the Commemoration Service at Southwark Cathedral on January 6th, 1925. Guy's Hospital will have been open on that day for 200 years and the Treasurer is anxious to know by that date the total amount collected towards the Bicentenary Appeal.

Will all old Guy's men, who have been kind enough to collect for the Hospital, inform Dr. Eric Wornum, Secretary to the Treasurer, the amount they have collected on or before January 1st, 1925.

It is not necessary for Collecting Books or Cards to be returned if Collectors would be kind enough to state the amount that they have collected. All Collectors will be informed

later when their books or cards are required, and a detailed list of all donations to the Appeal, together with the Collectors names, will be published in the GAZETTE.

It is earnestly hoped that every endeavour will be made over Christmas and the New Year to increase the amount already collected. The response has been very generous, but £200,000 is an enormous sum to raise and it is only possible to attain this by the fullest co-operation and continuous activity of all old Guy's men.

The Bicentenary Appeal does not close on January 6th, that is only the first day of the Bicentenary Year, but as mentioned above the Treasurer desires to announce how much has been received or promised by that date.

Will all those who read this notice kindly inform any others whom they know to be collecting, to send in the amount of their collection.

Any cheques or money received may be sent in at any time and an acknowledgement will always be sent for any such sums.

Please make Guy's your first thought over Christmas and miss no opportunity of collecting all you can.

Mrs. Tilbury's Dance.

We are glad to announce that the proceeds from Mrs. Tilbury's Dance at the Suffolk Galleries were nearly £45. Our most grateful thanks are due to Dr. and Mrs. Tilbury for all their hard work in organising this Dance and for the very enjoyable evening they gave us.

Grand Hotel, Eastbourne.

The proceeds from the Dance given by the Grand Hotel, Eastbourne were £50. We are greatly endebted to the Grand Hotel for this splendid result and we hope Mr. and Mrs. Eeley will accept our grateful thanks for their kind trouble.

The Disguysed Minstrels.

ON Monday next The Disguysed Minstrels give their first public performance at the Bridge House Hotel, London Bridge, at 8.30 p.m., and it is hoped that as many as possible will turn up to give the Troupe a good send off on their praiseworthy effort to raise funds in support of the Bicentenary Appeal. The entertainment is of the Pierrot variety and among the performances arranged at the moment are the following :—Kenley Memorial Hall, on January 8th; Ewhurst (at the kind invitation of Mr. and Mrs. R. P. Rowlands), on January 10th ; New Lodge, Windsor; Watford and Oxted, and it is particularly requested that any old Guy's man who thinks that a performance in his locality would meet with adequate success will communicate at once with the Secretary to the Treasurer.

The Members of the Troupe are Messrs. Morgan, Woodruffe, O'Meara, Forman and Whitlock, assisted by the Misses Hilda Mordaunt Rogers, Eileen Wild Smith, Gladys Meagher and Betty Eason, names which are sufficient guarantee of a first-class show.

The Recent Entertainment by the Musical Society.

(By nothing very special in the way of a Correspondent.)

THE Editor came to me and said, "Are you going to the Musical Society's Concert?" I said, "Naturally I am." And he said, "Good, write us at least two thousand words on it." And I said, "Are you not going yourself?" And he said, "Naturally we are." "Then," said I, "Why not write your own invigorating copy?" "Because," said he, "musical criticism is not one of our many accomplishments—we have never before criticised the Musical Society in the GAZETTE, whereas you have." And I said, "Yes, the last time I wrote a criticism of the Musical Society they did not give another concert for three years." And he said, "Good, you are just the man we want."

So I went.

Arriving shortly before eight o'clock, I threaded my way through the chairs that had been bought by the nobility and gentry and at last reached those reserved for the musical critics of the leading London journals. All around me rose a confused murmur of talk of crotchets and chromatics, of chromosomes and crêpe-de-chine. But before I had time to sort out one topic of conversation from another, the Musical Society filed on to the platform—a wondrous array of fair women and brave men. They at once proceeded with great gusto to tune up their instruments and their languages, which exercise they had not completed when, amidst enthusiasm, the Conductor, Mr. Herbert Y. Templeman, appeared before us, and, after a vain effort to still the noises of the Boro.', began the concert.

He first piloted the Society through a magnificent rendering of the National Anthem. Then, while the Choir recovered their breath, the Orchestra played to us the Overture to the "Magic Flute." At the risk of losing my reputation as a musical critic, I must confess that they appeared to me to have played it absolutely faultlessly.

The Choir, wishing to show their independence of the Orchestra, now stood up and sang three old folk songs, all by themselves. I was disappointed in the first one—The Dark Eyed Sailor—chiefly because I had expected to hear an old folk song which I used to sing myself in my youth, one which I remembered later in the evening was not about a dark eyed, but about another sailor. The second chorus told of some happenings in the Spring Time of the Year, but was not half cheerful enough to satisfy my idea of Springtime. The last one of all, however, all about the Flowing Tide, was fine and as the Choir (looking vastly relieved) resumed their seats, I joined in the general acclamation accorded to them.

When the tumult and the cheering had died away Mr. William Primrose appeared with his violin and began to play (accompanied by the Orchestra) Max Bruch's Violin Concerto in G Minor. Throughout the whole of the Concerto we of the audience sat absolutely enthralled, listening with silent intentness to every note that flowed from Mr. Primrose's strings.

At the end of the Concerto, after Mr. Primrose had been recalled time and again to bow his acknowledgement of our appreciative applause, Dr. Fawcett came on to the platform bearing in one hand a wand and in the other a mysterious box. There was enormous excitement in the Hall as he began to speak, but to our disappointment he did not attempt to produce either a rabbit or a bowl of goldfish from the box. All that he had to say was what a fine fellow Mr. Templeman was, how magnificently he (Mr. Templeman) conducted and how glad he (Dr. Fawcett) was to be able to ask Mrs. Fawcett to present to him (Mr. Templeman), on behalf of the Music Club, the wand of office he (Dr. Fawcett) now held in his right hand. Also he hoped that by means of the rays emanated from the said wand Mr. Templeman would be able to stimulate and restrain the Musical Society so that their reaction, time and technique would leave nothing to be desired or words to that effect.

Mr. Templeman replied thanking Dr. Fawcett and saying what fine fellows the Musical Society were and how magnificently they sang and played. He also said they were very healthy and let us into the secret as to why they were so good. Apparently they had spent two whole afternoons practising for this concert.

Part Two of the concert was commenced by the Orchestra playing Grieg's "Peer Gynt" Suite and, as the GAZETTE'S Rugby Correspondent would say, right magnificently did the Orchestra play. In Morning and in the Death of Ase, they left little to be desired, and if they fell below their own high standand in Anitra's Dance they more than made up for it by the wonderful way in which they played the Dance in the Hall of the Mountain King. From a psychological point of view, what interested me most was the way in which Mr. Templeman, perhaps inspired by the ray from his new baton, interpreted in the manner of his conducting the theme which each piece in the Suite was portraying. In Morning mood he was just sufficiently drowsy; as the Death of Ase was played he was solemnity itself; but with Anitra's Dance his movements became lighter, gayer, almost seductive; whilst in the Imp's Dance, as he led the Orchestra on, faster and faster, and louder and louder, to that final frantic crash, one could almost imagine that the youngest, the most sprightly and the most frenzied of all the imps had been transported away from the Hall of the Mountain King, and was dancing before us on the platform of the Chapter House.

Mr. Primrose now played some Violin Soli, the Gavotte in E (Bach-Kreisler), The Lea Rig, a composition of his own adapted from an ancient Scots Folk Tune, and Zapateado, by Sarasate. As an encore he played Chopin's Nocturne in E Minor. My stock of superlative adjectives would be strained to its utmost if I attempted to describe how delightfully these Soli were played.

And now came the pièce de resistance of the evening—The Banner of St. George. The Choir and the Orchestra got together and began to recount how outside the walls of Sylenë's city, there lived a dragon, one of those real, good, old-fashioned dragons, which have such a rapidly working basal metabolism that they are able to exhale fire and smoke from specially designed fireproof nostrils; how this poor dragon had apparently been prescribed the rather restricted diet (for a dragon) of one maiden per diem to be eaten raw without salt; how it had become the fair Sabra's turn to provide the day's nutriment for the abhorrent beast; and how St. George slew the dragon and rescued the fair Sabra. By the time they had said all this they had worked themselves up to a fine pitch of enthusiasm, and we in the audience were carried along excited and enthusiastic too, but I for my part was bitterly disappointed to learn that George did not marry the fair Sabra and settle down and live happily ever after, but that he at once mounted his horse and rode away. And I fail to see why the Musical Society were so bucked by this heartless act of desertion on George's part, as far as I could gather the Choir thought that this showed what a fine fellow he was and that it was because of this that he was made Patron Saint of Merrie England. But I can't see why.

Nevertheless, it was a very good concert indeed, and augurs well for the success of the Society's next venture—a Gilbert and Sullivan Opera—in the New Year.

Birth Control.

Paper read before the Guy's Physiological Society by Mr. C. P. BLACKER, on Tuesday, October 28th, 1924.

(*Concluded*).

To revert again to our consideration of the unemployed man. Associated with the relinquishing of decent standards of living, and with the disappearance of a man's pride and self-respect, there arises an attitude of mind characterised by an almost complete lack of responsibility, providence for the future, and thrift. When you are down and out, and on the rocks, when you have sunk as low as you can get in the social structure, there comes a curious carelessness and irresponsible fatalism about the future. You begin to feel that it really doesn't matter what you do. Your condition is now so bad that you can't make it much worse. Now it is an interesting biological fact that once you have achieved this state of mind you begin to have children in such numbers that it would appear that many of our most inveterate unemployables do little nowadays else. As their children are born, educated and medically treated free, and their dole is increased, the more children they have the matter is of no great importance to them. Their children then are probably underfed and become rickety or diseased, and may be sent to charitable institutions of some kind, or become members of some Boys' Club or mission or other, the secretary of which spends his life bombarding everyone with any money that he knows with appeals to the effect that one or two or three pounds will give a miserable little slum boy, who has never seen a green thing in his life, a week or a fortnight in the country among birds and flowers and under a clear blue sky. Surely we are all familiar with this kind of letter. Being in a humble way a householder myself, I get, on an average, one a week. Yet the cause of this trouble, the unemployable father, continues to afflict his unfortunate wife with more and more children, until the capacity of the missions, and the generosity of their subscribers are eventually taxed to their utmost or ultimately exhausted altogether. Yet strangely, it does not seem to have struck political reformers or party politicians that the mentality of the father is the "fons et origo" of all the trouble.

At this moment, when this country is reverberating from end to end with blasts of political oratory, and being swept from coast to coast with deluges of platform rhetoric, all concerned with advancing some party or other's remedy for unemployment and other social ills, I should like to add my thin, small, and wholly insignificant voice to the bewildering chorus. I should like to suggest that the best way of remedying our housing and other problems would be to help the parents to refrain from producing children which, in the first place, they do not want, and which, as follows from our now precarious industrial condition are, in the second place, only too likely to become the unemployed of the future.

There exist, therefore, indirect consequences of the high rate of multiplication of the poorer classes that have important social effects. Somebody has to pay for their education. their doles, their old age pensions and the other forms of relief extended to them. The funds required for these purposes are levied by taxation from the upper and middle classes, and the professional classes. The majority of the younger members of this Society here to-night do not have to pay taxes at present. This necessity falls on our parents. But, in the future, we shall have to pay, and that heavily. From an income of, say, £2,000, £600 goes in income tax. The remaining £1,400 has, under post-war conditions a purchasing power of about £800 before the war. Now most members of the professional classes have received decent educations which probably cost their parents a fairly considerable sum of money. It is probable that they would wish to give their children a similar sort of education. But under existing conditions, what with the increased fees connected with public schools and Universities, and the general rise in the cost of living, it actually is absolutely impossible for the *average* solicitor or medical man to pay

for such an education for more than at most two or three children. The result is that he limits his family, especially if he has expensive tastes and habits himself.

If, in 50 years' time, a census could be taken of the families of the students in this room at the present moment, I should be greatly surprised if we averaged above two children each, and the probabilities appear to me to be greatly in favour of the figure being below this. The following sets of figures are worth noting. In 1907 the standard rate of income tax was one shilling per £1. In 1915 it was three shillings per £1; to-day it is six shillings per £1. Now consider this. When the relative fertility in England and Wales of *teachers* is as 95, of *Church of England ministers* as 101, and of *doctors* as 103, that of *general labourers* as 438; that is to say, that the average labourer produces more than four times as many children as the average doctor. Thus there is being gradually brought about a slow extinction of the professional classes, which, if they are to continue to exist at all must be recruited from below. It is a fact that the more intelligent people in the community, or rather those whose occupations are intellectual in nature, are being rapidly outnumbered by those whose profession is manual labour.

This is the result of a consideration of the population question from the *quantitative* point of view. Closely overlapping it, and, in my opinion, yet more important is the question of quality. Investigations in intelligence tests applied to recruits in the American Army during the War, which I have not time to discuss in detail, revealed the fact that the least intelligent recruits were the most prolific. Recruits were divided into eight categories, ranging from "very superior intelligence," $4\frac{1}{2}$ per cent. to "unteachable men" who were rejected from the army as worthless as soldiers, 10 per cent. It was found that the unteachables, whose mental age was estimated as that of a child of ten, were for the most part prolific. The argument is sometimes used by those unacquainted with the potency of the factor of heredity in determining character that the use of a contraceptive by a working man might deprive the nation of a potential genius or a Shakespeare or a Darwin. Further investigations on genealogy carried out in America have shown this argument to be devoid of foundation.

It is astounding how true to type these genealogies have revealed the human animal to be. I should like to quote one well-known case—that of the Juke family—which so clearly illustrates this very important point. In the words of the original study of this family: "From one lazy vagabond nicknamed 'Juke,' born in rural New York in 1720, six generations numbering some 1,200 persons of every grade of idleness, viciousness, disease, idiocy, insanity and criminality were traced. Of the total seven generations 300 died in infancy; 310 were professional paupers kept in almshouses, 440 were physically wrecked by their own 'diseased wickedness'—the American synonym for syphilis; more than half the women fell into prostitution; 130 were convicted criminals; 60 were thieves; 7 were murderers; and only 20 learned a trade, 10 of these in a state prison—please note that, but of 1,200 of them, only 20 learned a trade, and all at a cost to the State of $1,250,000—that is to say about £300,000. By the year 1915 the clan had reached its ninth generation, and had greatly lengthened its evil record. It then numbered 2,800 individuals, half of whom were alive. About the year 1880 the Jukes had left their original home, and had scattered widely over the country, but change of environment produced little alteration in their natures, for they still showed the same feeblemindedness, indolence, licentiousness and dishonesty, even when not handicapped by the association of their bad family name. By this date the cost to the State had risen to $2,500,000—that is to say, about £600,000."

I am far from maintaining that the greater part of our working classes are in any way comparable to the Jukes. There are many men of excellent repute and high standard of living who have large families. A man like Hewitt, for instance, the boxing instructor to this Hospital, the father of a large family, and a man of magnificent physique as well as of exemplary behaviour and character, confers a great benefit on the nation by having a large family. The working classes could not possibly be made of better stuff than that of which he is made. But let it be remembered that he is a highly skilled workman and earns a wage which is higher compared with the average, and which enables him to support his family with an adequacy which is all too rare in his sphere of life. In spite of cases like his, the generalisation holds that it is

the careless, thriftless and irresponsible man who usually produces the large families. Mentally deficient men and women are generally very prolific. Feeble-minded girls and women, unless kept in asylums, are constantly becoming pregnant, there being, apparently, no shortage of men who are ready to avail themselves of the opportunity of taking advantage sexually of such unfortunate victims.

Thus the fact outstands that quantitatively the more intelligent classes are being rapidly outnumbered, and qualitatively there seems to be a marked tendency for the least desirable types even of the working classes, to produce most children.

These considerations, taken in consideration with the fact above referred to that as a result of improvements of medical science large numbers of physically unfit people are now kept alive to reproduce their kind, point unmistakably to the conclusion that the normal process of nature—the process of the survival of the fittest—has not only been arrested in civilised countries, but has actually been reversed. Intellectually and physically, the race is likely to degenerate if this process is allowed to continue unchecked.

And it is true that in so far as civilisation is merciful to its physically unfit, it is acting contrary to nature, which left to itself, will ruthlessly eliminate its weaker types. This being the case, it is probable that civilisation will, in the long run, suffer for its departure from the course of Nature unless it does something fairly drastic in the way of a substitute for it. That substitute can, of course, only be found in the process of artificial selection. Civilised peoples must do something definite to prevent too great a quantitative preponderance of intellectually and morally inferior types, and must take steps to prevent the multiplication of individuals who, judged by reference to human standards, are biologically and socially unfit.

And this brings me to the point, the discussion of which I postponed at an earlier stage in this paper—the criterion of biological fitness as applied to civilised humanity. I should now like to recall the generalisation I made before: "*When a species is subjected suddenly to unstable and changing environmental conditions, standards of survival value that have previously obtained for it, may cease to be of profit to it, and it may become biologically advantageous to that species to abandon its old standards and to adopt new ones.*" Nobody can reasonably deny that the changes in human environment, produced by civilisation and especially modern industrial civilisation, constitute something unprecedented in the history of the race, and of the world. The human race is at the moment passing through a crisis obviously different from, yet analogous to the other great biological crises, as a result of which, novel and capricious mutations, such as those of the pentadactyle limbs of our amphibian ancestor, were invested with a survival value, pregnant with the most momentous consequences for the race. There has never, in the history of the planet, been anything like present-day civilisation before. Is it likely that the same characters and qualities are to be favoured now that were favoured in the days of palæolithic man or the hunter of reindeer? It is to me perfectly obvious that they are not. The all important question then arises, what *are* the qualities that carry with them biological fitness when applied to civilised man? It is clear that the whole of my argument is going to stand or fall by this essential problem. I propose to start by applying to it another important biological consideration. When a species is confronted with a novel environmental situation to which it has to adapt itself or perish, it is extraordinarily difficult to prophesy what are going to be the lines on which that adaptation is going to proceed. Perhaps I may give an illustration. At the end of the Mesozoic period again, our reptilian ancestor was confronted with climatic conditions of such severity that its young could no longer fend for themselves unassisted, in the quest of food, by their parents. Somehow or other, therefore, the parent had to provide food for its young. There were many possible ways of its doing so. The parent might obtain the food and just feed the young, keeping them warm as birds now do. Or it might place its young in a situation where it could easily obtain food when it hatched, as certain insects do. But our reptilian ancestor would have had to have been a very far-seeing animal to recognise the biological and survival value that was destined to be attached to that hypertrophied and modified sweat gland, situated on the ventral surface of the female that was the precursor of the mammalian organ of lactation! He would have had to possess an insight and a penetration that few of the human prophets of the future now possess. Let us not then

be too presumptuous in our assertions of what qualities and modifications are going to possess biological value for the race.

The question is further complicated by the gregariousness of man and the differentiation of function that so profoundly characterises our social organisation. Qualities which, to the solitary animal would irrevocably spell immediate extinction, may for the gregarious animal have the highest survival value. Thus no quality could be so irremediably fatal to a non-social animal than sterility. Yet the sterility of 999 female bees out of 1000, in the community of the hive, has endowed the species with a vitality and a biological importance such that it has actually conditioned the appearance on the planet of many kinds of entomophilous flowers.

So difficult does the problem appear in this light that one wonders if it is possible to do more than merely guess at what is going to prove of value to man on biological grounds. But while we may experience doubt as to what characters may in the future possess biological value, we can be much more certain of those that are *not* going to possess such value. Thus our primitive reptile ancestor might have felt tolerably certain that the quality of lowered resistance to cold would, in the future, prove biologically harmful to his species. And I feel equally certain that the future over multiplication of the proletarian masses of this country will prove biologically harmful to us.

If Professor Pembrey opposes the dissemination of knowledge of contraception among the poorer classes on biological grounds, he does it presumably because he considers that the working man is a biologically superior type. On what grounds biologically is the water-side labourer superior to the average Government official or the average Fellow of the Royal Society? I think it likely that if we were to organise a rough-house fight between an average water-side labourer of 50 and an average Fellow of the Royal Society of his own age, the water-side labourer would get the best of it. If you were to hit a water-side labourer and a Fellow of the Royal Society over the head with a hammer with equal force, it is probable that the cranium of the water-side labourer would be less damaged in the process than that of the scientist. The water-side labourer would probably drink more beer without being severely incapacitated, and could withstand greater hardships, and probably has a greater resistance to sepsis than the Fellow of the Royal Society. And if Professor Pembrey's or my wife were to have a fight with the average Borough woman of their respective ages, it is probable that both our better halves would get the worst of it. The possession of these robust qualities might have had biological value in the stone age, but it does not follow from this that they *now* are patterns for us to imitate. Professor Pembrey might argue that on biological grounds—that is to say, on elementary physiological grounds—the Borough woman with ten children is a preferable type to the pampered Society woman who manicures her nails, never does a stroke of physical work, gets dyspepsia from overeating and underexercise, abstains from breast feeding her children because she is afraid of spoiling her figure, and refuses to have more than one or, at most, two children because she dislikes the discomforts and deformity preliminary to, and the actual pain of, labour. And he might argue that the casual labourer who goes ahead and has ten children without thinking of himself (or anybody else for that matter) is, on biological grounds, a preferable type to the moderately wealthy man who refuses to have more than one or two children, because he prefers to spend his available money on champagne, motor cars and a large house with a staff of servants than on educating children. And here I should, of course, entirely agree with Professor Pembrey, and request him to give me full credit for this agreement. In my opinion the surest sign of a nation's decadence is the refusal, on the part of people of that nation, to have children on selfish grounds. It was the most certain criterion of decadence in classical times, and remains so still. The selfishness of the upper classes is, in my opinion, definitely more abiological than the improvidence of the lower, and with my contention that it is desirable to limit, in many cases, the families of the working classes, I couple the more emphatic contention that the upper and middle classes should do all in their power to produce as many children as they can afford, even at a sacrifice to their own luxury and affluence. I should like to add, too, that I consider abiological anything which renders difficult the production of offspring by the upper classes. I am not sure that our very expensive system of public school education is not, in this sense, abiological. I consider, in short, the excessive use, or the *abuse* of con-

traception, biologically *many times more pernicious* than their insufficient use. In this matter, as in every other, we must proceed by a mean.

As I said before, the criterion of that which is biologically desirable is that which improves the race. In what way, then, can the race, and especially the population of this country, be improved? Though I am tolerably certain of how it can be deteriorated, I confess to a certain lack of confidence in laying down the lines on which it can best be improved.

The division of labour, and differentiation of function, being carried to such extremes in civilised societies, I do not consider it possible to hold up any *individual type* as an *exclusive* ideal of fitness. Manifestly it is as impossible to do this for the human race as it is for the community of the hive. The criterion must then be social, and not individual. Tentatively, I suggest the following as an ideal.

In the first place the population of a country should be proportionate to its resources. For every country, at every given moment, there is an "optimum" population—a population, that is, among which there is no unemployment, where individual productivity is highest, and where there are no idlers at either end of the social scale. The physical standard of the population should be high, with the minimum of disease, the minimum of insanity, and the highest average standard of bodily physique. There should be a high average standard of comfort, self-respect and happiness, and a high moral standard of honesty, tolerance and kindliness, with the minimum of cruelty and crime. On average, each woman should produce two live children, and bring them up to adulthood. I should like to see a wide prevalence of that quality of optimistic "joie de vivre," cheerfulness and contentment which is, doubtless largely temperamental in origin, and which contributes more to an individual's general happiness than any number of wordly possessions can ever do. And I should like to see the social cleavage between classes, and the now stupendous discrepancy in wealth between the very rich and the very poor, reduced to a minimum.

These qualities I should like to see *universally* distributed. I am very doubtful as to whether a *universally* high degree of intelligence is desirable. In every community, primitive or civilised, an immense amount of crude physical work has to be done. The soil has to be tilled. Some one has to dig the coal and the iron out of the earth, and endless other kinds of manual work have to be performed. I doubt whether the possession of a very superior kind of intelligence or mental development would make such workers happier or more efficient. But whatever we may individually feel about this point, *all* would wish such workers to be healthy, happy, well-housed in pleasant surroundings, contented with their lot, fond of their children, and both appreciated by, and on good terms with, the rest of the community. Upon this last I lay the utmost emphasis at my command.

I confess the above sounds rather like a description of Utopia, and may appear to many in these disturbed times, utterly beyond our reach. I am convinced, however, that if we set about things, in the right way, it is, in the limits of time, possible of approximate achievement, and anything which helps towards the realisation of it is in my conception *biologically good*. This is my definition. I am not of the opinion that such a state is going to be achieved by a bloody social revolution, or that it is going to be brought any nearer by a further increase in the number of proletarians in this country, that is to say, of casual and unskilled labourers and of unemployed, or by a further limitation of the families of the more educated classes.

What are the immediate steps towards its realisation? I believe they are *two*. In the *first* place the population must be reduced to somewhere near our economic optimum. In order to effect this a fairly drastic reduction of our present numbers must be effected. And it is precisely here that the dissemination of knowledge of birth control is going to prove biologically useful. As I stated in my letter, it seems probable that about two-thirds of the children born in the Borough here are not wanted. Mr. Frank Cook says he thinks that I underestimated the figure, and I personally think that if we erred at all it was in the direction of moderation. This is, when you come to think of it, a somewhat melancholy subject of contemplation. But as it stands it points the way to the solution of this most urgent social problem. I consider that it can only be solved by persuading the medical profession of its urgency and importance. The work which we could do quietly and effectively in this direction can never be done by noisy popular campaigns which rarely

reach the working classes at all. And I confess that I am sufficiently Victorian in my ideas to disapprove of popular books and meetings in which are expounded the technique of coitus with a cheque pessary. It is futile for party politicians to advocate tariff reform, or free trade, or preferential tariffs, or treaties with Russia as cures for our present unemployment, when our numbers are steadily increasing and our industrial supremacy steadily dwindling. The cure, gentlemen, lies in our hands if only we have the vision, the conviction and the courage to apply it.

In the *second* place comes the question of the quality of our population. This is clearly a more difficult question, the cure for which is more remotely accessible. It consists in our substituting for the now inoperative process of Natural Selection, a process of artificial selection. This can only be done by some form of Eugenic legislation. This may sound outside the realm of practical possibility in the *world* at the present. Yet it is not so, as the following measures, passed in certain states of America, will testify. The State of Nebraska, for instance, forbids the marriage of persons afflicted with venereal disease and insists that no one adjudged afflicted with hereditary epilepsy or insanity shall marry unless first submitting to a sterilising operation. Applications for licence to marry must be accompanied by affidavits of freedom from venereal disease. Montana provides for the sterilising of inmates of what are euphemistically called "custodial institutions," who are insane, feeble-minded or epileptic. As long ago as 1895 Connecticut forbade the marriage of epileptic or feeble-minded persons under the penalty of three years imprisonment. And in 1922 California empowered the criminal courts to direct an operation to prevent procreation to be performed on persons convicted of carnal abuse of girls under ten years of age, and Indiana, Iowa and other states have passed similar acts. Surely, gentlemen, we must all approve of these measures. The social desirability of sterilising, by what is after all the minor operation of vasotomy, people like Juke, whose genealogy I quoted to you, and people like the two boy murderers, Leopold and Loeb, is fairly obvious. In America the thing known as individual liberty is admittedly valued less than in this country, but is it hoping for too much that the spirit that prompted behaviour involving such heroism, self-sacrifice and hardship in the war, in the interests of the community, should in the future manifest itself in a civil code of honour and ethics in the interests of the community at peace along other lines? It is my conviction that public opinion requires education in this direction, and I think it is for us to do it. Why should not the medical man, who, of all other men, should take the physical welfare of the nation to heart, occasionally earn an honest penny by writing articles in newspapers along these lines? Why should not the principles of Eugenics be taught in our public schools and Universities? They would surely have more educative value than would a knowledge of Greek irregular verbs and Latin syntax. I am favourable, then, to stopping the popular campaign in favour of Birth Control, and in starting one in favour of Eugenic legislation.

However much one might disapprove of the application of Eugenic principles on personal lines, no one can dispute their biological value. The epileptic and feeble-minded man might not, from his own point of view, like being forbidden marriage, or having to submit to a vasotomy, but there can be no doubt from the point of view of the race, biologically speaking, that is, the measure would be valuable.

I submit, therefore, that for this country at this moment quantitative and qualitative birth control are biologically good so far as we, with our limited vision, can estimate what will, in the future, be good for the race. I make the reservation "for this country" because I do not think that the principle holds for all countries. New Zealand, for instance, is at present underpopulated, and has a magnificent native stock of 98 per cent. of Britain's best, with a substratum of the most superior native race in the world. It is probable that the quality of immigrants from China, Japan, Russia and Southern Europe would be inferior to the native stock. If I were a New Zealander, therefore, I should at the moment oppose both immigration and birth control on biological grounds, but I should be prepared to recognise a time in the future, when the numbers become adequate to the resources and possibilities of the country, at which the population should begin to be regulated. On biological grounds I should then favour a gradual quantitative, and if possible, qualitative control of birth.

And I should like, before finishing this paper, to make one more point. In the same way that the *excessive* practice of birth control by a

given class will lead, in the long run, to the extinction of that class, if other classes are rapidly multiplying, so will the excessive practise of birth control by any given nation in the long run lead to its supersession by more prolific nations. It is necessary, therefore, for us to do our utmost to persuade other nations to reduce their population to their economic optimum. If the present generation of medical students are educated in contraceptive methods, and possess the ideal of reducing the population of this country to its economic optimum, I suggest that we should do our utmost to communicate our ideas and methods to medical students of other countries. I would suggest that it would be desirable that we get into touch with medical students in Germany and invite them to proceed "pari passu" with us. I have, as a matter of fact, made inquiries about their attitude to birth control, and myself know several German medical students, whom I have good grounds for thinking would be willing to co-operate with us. If such a co-operation could be effected, we might jointly approach Japanese and Indian medical students with the same end. It is clear that each country would greatly benefit from a reduction of its population to its economic optimum, and furthermore, in effecting this desirable end, we would be doing the one and only thing—the unique and solitary thing—to avert war in the future.

In the above arguments I have approached the question of birth control from the biological point of view alone. There are many other points of view, the ethical and the technical, for instance, which I have omitted from discussion altogether, and which I hope will be raised by other members of this Society this evening.

For the reasons, and with the reservations, then, that I have given, I submit that for this country at the present moment, birth conrtol is desirable on biological grounds. But even, gentlemen, though you may disagree with my contention, I submit to you that as medical men, you should understand the principles of contraception. It is in the highest degree probable that in private practice, your advice will be asked about it later, and it appears to me grotesque that the question should be so elaborately avoided in the books used in our medical training. I ask you, therefore, to join me in requesting the authorities of this Hospital to include some sort of instruction in this matter in our medical curriculum.

And finally, I should like to say just two things. Never having worked under Professor Pembrey, I only know of his opinions on this question second or third hand. If, perchance, in this paper I have misrepresented or caricatured his views, I hope he will forgive me, for I should like to assure him I have done so inadvertently.

And I should like to express my appreciation to you, gentlemen, for having listened to what must have been, I fear, an unpardonably long paper, with so much patience and attention.

Inquest Fees for Doctors.

The following is an extract from "Truth," of December 3rd, 1924:—

CORONERS are unanimously against the decision of the London County Council not to allow fees to institutional (Poor Law, Prison, and Metropolitan Asylums Board) doctors for making autopsies. Dr. Waldo, the City Coroner, has for a long time advocated an amendment in the Coroners Act of 1887, making it possible for coroners to pay all registered medical men a statutory fee for giving evidence and making autopsies. In every other Court, he points out, doctors and those connected with medical institutions get paid a fee. House-surgeons and house-physicians have to perform onerous and responsible work in their hospitals for which they are paid very little, if anything at all, and they are obliged, on summons, to perform autopsies and to give evidence before a coroner and jury without any fee whatsoever. This is a serious injustice to a hard-worked body of men who do a great deal for nothing.

With regard to this we may say that in giving evidence, in 1908, before the Departmental Committee of the Home Office, Dr. Waldo advocated the payment of a statutory fee to all registered medical men and £1 1s. for giving evidence before a Coroner for each day, and £2 2s. when ordered to make a post-mortem examination by the Coroner (in place of the £1 1s. at present paid).

At a recent inquest, Dr. Waldo said he presumed provision was made in the Draft Amending Coroners' Bill of the Home Office on the recommendations of the Departmental Committee of 1910, on Coroners, for the payment of a statutory fee to all registered medical men appearing in the Coroner's Court.

On such an assumption it would be clearly to the interest of all doctors connected with medical institutions (at present unpaid) to see by means of their Members of Parliament, that the Draft Coroners Amending Bill be placed on the Statute Book without further delay.

M. S. P. —— ?

"The glass of fashion and the mould of form,
The observed of all observers."

SHAKESPEARE.

A Retrospect.

1869—1924.

(*Concluded.*)

Not so Jacobson, he acknowledged the still further progress made, and let it be the foundation of all his work. He saw its value and recognised it as a still higher truth.

His death has again revived all these past memories of the discovery, and investigation of, those first doubtful foundations of what has now grown to be looked on as eternal and fixed truths.

It was not long before Jacobson entered Guy's that they were first thought of, and their quest undertaken by Lister.

What a privilege for him to have seen the birth, progress and final establishment of one of the most blessed discoveries that the scientific world has ever made.

What strange misconceptions have taken place in the meantime. Some thought that anything would be borne by the body if only done antiseptically. Abdominal surgery again came to the front. It had been almost given up, owing to the frightful mortality.

One early abdominal operation of this kind I saw on a patient, supposed to have something abnormal in her abdomen, causing all her trouble. A long incision was first made low down and the hand introduced. As nothing was found, another long oblique incision was made higher up; here again nothing was found; so a third and final opening was made under the cartilages and the hand again explored everything within reach, without result, but as nothing was seen or felt, the wound was sewn up and the operation concluded. At each of these separate steps the intestines were taken out into, what were euphemistically called "warm towels," and they were examined inch by inch and then put back again. At the time this was permissible and warrantable under the state of knowledge of the time, but it shows from what a state of things we have arisen.

At times, and in certain surgical circles, the antiseptic treatment got into such disrepute that it was practically abandoned, though some would say that "there might be something in it," that was as far as they would go. But the truth did not die, and Lister and his faithful band worked on as steadily as ever, quite inattentive to the unworthy criticisms that were being made. They still continued to "follow the gleam."

Courage and perseverance were, however, at length rewarded, and the Profession acknowledged the debt it owed to the genius of Lister, and his patient toil through so many years of difficulty and opposition.

The dispute in the Medical Press was another marked incident of those early days. Dr. Johnson of King's College, who was looked on as a great authority of kidney diseases, would not accept Sir Wm. Gull's theory that the thickening of the wall of the arterial capillaries was secondary to the hypertrophy of the left ventricle, but insisted that the increased muscular powers of the ventricular wall was an effort to overcome the resistance caused by the inelastic coats of the capillaries. Gull was a Guy's man and his brilliant reputation brought him many adherents, so that this extraordinary discussion was kept up for some time.

What a privilege it was for Jacobson to live through such a stirring period in the surgical world, and to take an active part in it all! How hard he worked to impress on surgeons the grand results of Lister's discoveries; and to show how far they could go under the protectioon of asepticism, in removing by the knife, abnormalities which in other times no surgeon would have dared to attack.

Yet who can tell but that even greater questions yet remain to be investigated by the coming generation, as important to the progress of medicine and surgery as ever was the scientific result of the work of Lister on the origin of sepsis and its detection and remedy.

At what time during the early experimental work, when carbolic acid was in its glory as the background of all dressings, etc., the decree went forth that all wounds were to be dressed with a paste made with carbolic oil and chalk spread on tin foil. This was in the late Sixties, and was, I think, the most messy and inefficient dressing I ever assisted in applying to a wound. Of course air had free access to the wound on account of the inflexibility of the tin foil, so suppuration was unchecked and

unabsorbed, and the area of the wound was in a worse state than under a dressing of even wet lint. Of course it was soon discarded, but I have often, under the instructions of a surgeon, who had recently been Lister's dresser, used this uncomfortable and ugly dressing many times. In cases of operations on the hands and fingers its application was especially unsatisfactory. Could any man desire to have lived in more experimental times, or to have been associated with a more noble band of seekers after truth?

Can any man hope to be more respected during life, or more sincerely regretted after death, than one of these faithful workers?

Jacobson was, as far as I knew him, without a selfish thought, but energised solely by an earnest effort for the attainment and distribution of knowledge and the spread of the truth, the abolition of error, and the weeding out of those ignorant prejudices which always grow in places vacant of ascertained knowledge, and not yet filled up by the results of accurate work. His was a noble life. Anybody could take the credit and distinction which his work brought, if only he could ensure its accuracy and completeness.

His diffidence to popular applause and the opinion of flatterers, was so abnormally apparent as to give him at first an appearance of singularity, which might not have persisted after his earlier years. Under this great unselfish generosity and his effort to make the path in the life of others as free from difficulties as possible, there lay a love of sarcasm and a quiet verbal "nip" which was sometimes evidently unrestrainable. But his work is now finished, and his departure has aroused all these memories and more, of things which have occurred during the period of his active life. It was a noble life, and no wonder his death brought up so vividly the long buried past.

One line alone from Ovid explains the motive both of writer and reader of the above:—

"Scribere jussit amor."

Ovid, Epist. IV., 10.

The Bicentenary Gazette.

THIS stupendous work, which will be published on January 6th, is now nearing completion and, for the sake of those who are under the impression that it is merely an enlarged number of the usual fortnightly GAZETTE, we announce the following details of its composition.

It will consist of something over 150 pages and will be profusely illustrated, the general idea, running through the entire volume being to present an up-to-date and adequate history of all that appertains to the Hospital together with an account of the Hospital as it is to-day, for comparison with the Hospital of the Tricentenary year.

The chief articles will be as follows:—

1. "The History of the Hospital," by Sir William Hale-White.
2. "The Hospital as it is To-day," by The Superintendent.
3. "The History of the Medical School," by The Dean.
4. "The History of the Dental School," by Mr. F. J. Pearce.
5. "The History of the Nursing Staff," by Miss F. A. Sheldon.

Besides these there will be other histories of Guy's Societies and Departments, such as The Ladies' Association, The GAZETTE, The Museum of Antiquities, The various Athletic Clubs, The Students' Physical Society, etc.

One thousand copies of this unborn prodigy have already been sold and those who wish to receive their copies on the date of publication are advised to send a postal order of half-a-crown to the GAZETTE MANAGER as soon as possible. There will be no charge for postage. The fortnightly GAZETTE will appear as usual on January 3rd.

Publications Received.

The British Medical Journal, The Nursing Times, The University College Magazine, The Serpent, The Broad Way, The Queen's Medical Journal, Bratislavské Lekárske Listy, St. Mary's Hospital Gazette, The Antiseptic, The Indian Medical Record, St. Bartholomew's Hospital Journal, The Architectural Association's Journal, The Isis, The Dental Record, The Bedford College Union Magazine, The Medical Review, The University of Durham College of Medicine Gazette, The London Hospital Gazette, The Long Island Medical Journal, The Middlesex Hospital Journal, The Magazine of the London Royal Free Hospital School of Medicine for Women, The Gong.

André Vésale: The Man who Decided when Doctors Disagreed.

By W. BAILEY KEMPLING.

AN event of conspicuous interest to the medical world and, to some extent, the world in general, was to have taken place about the eve of the outbreak of war. It was no less than the universal celebration of the 400th anniversary of the birth of Andreas Vesalius (André Vésale). That the Father of Modern Anatomy, the man who first demonstrated the true position of the human heart should be given an international tribute was only right and just.

European and American men of science had promised to contribute specialised essays, and the form to be taken was a volume of considerable dimensions covering the entire field of Vesalian interest. Nothing less was worthy for the great Belgian anatomist whose pioneer efforts and revealing power had been bitterly opposed.

Clearly it was essential that a book of this kind should be illustrated, under the direction of some skilled iconographer. The editor-in-chief, Dr. Paul Heger, President of the University of Brussels, thereupon asked Mr. M. H. Spielmann, Chevalier in Belgian Orders, to perform this labour of love. It was a task involving considerable application: in the assembling of 100 photographic prints, specially made from portraits, group paintings, engravings, sculptures, medals, spread over half of Europe and America, in public galleries and private collections. Vésale has had more pictures put down to his credit than any other distinguished man, probably, Shakespeare alone exempt. These portraits have come from the studios of Titian, Tintoretto, Mor, Moroni, and the like.

To this great gleaning Mr. Spielmann had to contribute an exhaustive iconography and iconographic bibliography, which would be something off the beaten track of art criticism. His part of this commemorative volume was no sooner completed than war broke out. The whole thing had to be abandoned, and since then, with the great increase in the cost of labour and material, it has not been found possible to resume. Dr. Heger, therefore, requested Mr. Spielmann to translate his work, written in French, into English, and secure publication in England on behalf of Belgium. The iconographist has gallantly responded, and the issue of what now will be the sole tribute, in book form, to Vésale's memory, has been made possible by the good services of the Wellcombe Historical Medical Museum of London, who will make it No. 3 of the Research Studies in Medical History published by that great Institution.

In addition to the main text there will be forewords by Prof. Heger, Sir Arthur Keith, Dr. Harvey Cushing and Dr. Tricot-Roger, Thus the idea of a Libor Memorialis will be well realised, and a noted contribution made to the literature and artistic aspect of this remarkable man.

André Vésale was born at Antwerp in 1514. At the age of fourteen he entered the Anatomical School of Louvain University. At twenty he was studying in Venice and a year later in Padua, where a Professorship was followed by one at Bologna, and a third at Pisa. His great work, "De Humani Corporis Fabrica," appeared before he was twenty-eight, and its challenge to the long-accepted (and still venerated) Galen system of anatomy, especially pertaining to the heart, brought him more foes than friends. Proving, by repeated demonstrations, the impeccable truths he had discovered, the Galiens declared that the human body must have undergone great change since Galen's day! It is said (though not proved) that the Inquisition was set in operation and that Vésale had to fly in pilgrimage to the Holy Land. He went thither for another purpose, and at Jerusalem was made the successor of Fallopius, by the Venetian State. He had sailed with the Venetian Fleet, being Court physician, in turn, to Charles V. and Philip II. His homeward journey was now begun: but tempestuous seas in the Ionian wrecked the vessel and Vésale was thrown upon the Island of Zante, where quickly he expired. Penniless (possibly by robbery) and deserted (save by the vultures that hovered around), the body of this incomparable genius owed its decent burial to the generosity of a stranger. To-day the world of science and medicine pays tribute to his memory and homage to the abiding light which he revealed.

Presidential Address to Dental Society

By MR. RICHARD PRITCHARD.

GENTLEMEN,—At the opening meeting of this Society it is customary for your President to read an inaugural address.

I would first of all like to thank you most heartily for the honour you have done me in electing me your President for this coming Session. Many men, eminent in our profession, have held this position before me and I will endeavour to the best of my ability worthily to uphold the high traditions which we have maintained since the Society was founded in 1894.

For the subject of this address it is usual to choose one of broad professional interest. I would like to deal briefly with the importance and necessity of observation as applied to Dental Surgery.

You should first of all realise that, in your professional work, you are not dealing with a separate entity, but that your field covers only a very small part of a very complicated organism. The functions of the whole can only be carried out if the functions of the various parts themselves are carried out in the normal physiological way.

Diseases of the mouth play a very important part in causing and influencing diseases in other parts of the body. Also there are general systemic diseases which have their oral manifestations which may disappear, or which may leave their mark to appear many years later.

I have often met those, during my work in the Hospital, who think that the beginning and the end of their work is the tooth. Consider what a variety of pathological conditions one may meet with in the mouth alone. Excepting those who come to you at regular intervals for inspection prophylaxis and treatment if necessary, the great majority of your patients seek your assistance because of that very useful symptom—pain in the mouth. Conversely, you will see many who are sent to you to find out if their pain—not in the mouth, is produced by pathological changes in the mouth. It will need all your powers of observation to localise the origin of these pains.

You should remember that toothache may arise from a variety of causes and unless the right one is found your treatment will be unavailing. I have seen such cases as these, An aching canine tooth was dressed with oil of cloves or carbolised resin, the next day the patient presented with a badly swollen face due to the pointing of an alveolar abscess, and with no relief of pain until the abscess had pointed. This is a gross example of rule of thumb treatment arising out of a total inability to appreciate correctly symptoms, or to observe the physical signs.

Conversely, I have seen a case treated for days for a sore throat, when what was needed was the removal of a half erupted lower third molar suppurating in its crypt. This illustrates again a lack of the powers of observation.

Alternatively, I have seen cases rendered edentulous in the vain endeavour to remove severe pains in the head caused by epiliptiform neuralgia. Your consideration of the mouth should be as of a part of the whole. In the mouth you have to note the teeth and the supporting structures of the teeth, that is the alveolar bone and the mucoperiosteum over them and the periodental membrane. You have also to note the mucous membrane of the cheeks, the roof and the floor of the mouth and the tongue. The fauces, the tonsils, and the accessory air sinuses rather more remotely come under your observation. You will often be the first to see pathological changes occurring in and near the mouth, and it is your duty as a competent dental surgeon to interpret these appearances correctly.

Papers by Guy's Men.

R. P. Rowlands, O.B.E., M.S., F.R.C.S. Aneurysm of a branch of the Renal Artery and Rupture: Nephrectomy: Recovery.—*B.M.J.*, 1924, ii., p. 939.

Graydon O. Hume, M.B., B.S., D.O. Optic Atrophy: Due to Late Syphilis.—*Lancet*, 1924, ii., p. 1,064.

W. Kelsey Fry, M.R.C.S., L.D.S. Treatment of Cleft Palate.—*Ibid.*, p. 1,081.

H. W. Barber, M.D.. (1) Case of Multiple Basal-celled Epitheliomata. (2) Case of Arsenical Dermatitis with Multiple Epitheliomata. (3) Case of Parapsoriasis.—Proc. Roy. Soc. Med., xviii., 1924, Sec. Dermatology, pp. 14—16.

A. Ralph Thompson, Ch.M. Papilloma of Renal Pelvis.—*Ibid.*, Sec. of Urology, p. 2.

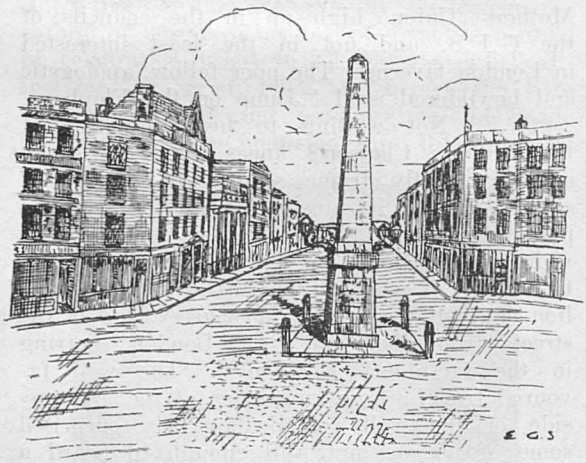
——. Ureteric Calculi.—*Ibid.*, p. 4.

The Elusive Obelisk.

Proceedings of the Southwark League for the Discovery of London.

"Those that are acquainted with London are aware of a locality on the Surrey side called the Obelisk, or more generally the Obstacle. Those that are not acquainted with London will also be aware of it, now that I have named it." Charles Dickens, in "Somebody's Luggage."

THE one patient soul who is reading this story will recall that the members of the League made a very careful survey of Blackfriars Road in their search for the Obelisk. When they reached the end of the thoroughfare Cheeseman and O'Connor pointed to an erection in the middle of St. George's Circus (which looked as much like St. Paul's Cathedral as an obelisk) and hailed their betters with the cry, "There it is." Very



E. G. SAMES.

The Obelisk in the Nineteenth Century.

gently I proved them to be wrong and we withdrew to a neighbouring tea shop for a conference. As it happened, in the dingy tea room we found a picture of St. George's Circus with the real Obelisk in the centre—an erection which was removed in 1905 to make way for the present clock-tower. The young men gracefully admitted their mistake and we gave ourselves up to a discussion on the situation.

Brass Crosby.

I explained that the Obelisk we were looking for was built in St. George's Circus in 1771 to commemorate the daring of Lord Mayor Brass Crosby. In the eighteenth century it was considered criminal for anyone to publish accounts of parliamentary debates. In 1771 a firm of City printers began to publish speeches. This was regarded by certain M.P.'s as illegal and dangerous, and the culprits were summoned to appear at the Bar of the House of Commons. They ignored the order and one of them, John Wheble, was arrested but was discharged by Alderman Wilkes, a freedom-loving magistrate. Wheble's partner, Miller, was also arrested and brought before Crosby and Wilkes, who let him go unpunished. King George III. now intervened with the result that Crosby was sent to the Tower. Public opinion was with this worthy Lord Mayor and when he was released, twenty-one guns boomed out as he left the prison. Soon afterwards an Obelisk, which was to serve as a milestone and to support a number of lights, was set up to commemorate the man whose courage secured liberty of the press. "But where is that milestone?" asked the younger members.

The Dog and Duck.

Hating silence and unable to answer the question I began to explain that all the land round the Circus was known in the old days as "St. George's Fields." In the 18th century it was not only the resort of prisoners from the jails of the neighbourhood but also a rendezvous for the least desirable members of society. "The quality" went to Vauxhall or Ranelagh for their recreation while the degenerates of the "lower orders" made for a questionable inn known the world over as "The Dog and Duck." So degraded was the company here that the Surrey magistrates refused in 1787 to renew the licence, but were overriden by the Lord Mayor of London, who was brought down to hold an enquiry. Very soon after this, buildings began to spring up everywhere in the district and "The Dog and Duck" ceased to be.

Clayson, who was still awake at the end of my long speech, told us that at Bedlam, hard by, within the gates and set in a wall, may be seen the old stone sign of the inn dated 1617 and covered by a pane of glass. We all expressed a wish to see it, but were told that it

was within the walls and not shown to the public. Looking at each other knowingly we were under the impression that we had discovered the hidden chapter in our friend's career.

The Gordon Riots.

Tapping the floor with the inevitable umbrella, Brook, who has a passion for religious and political freedom, asked if he might be allowed to say a word. He told us of another incident in the history of the Fields—which, by the way, derived their name from the church of the parish, St. George the Martyr, Southwark—the church where the brides come from. We gathered that we were probably having tea on the very spot where 50,000 men, wearing blue cockades "to distinguish them from the Papists," met Lord George Gordon in 1780 and marched with him to Parliament where a protest was made against the idea of allowing Roman Catholic priests to say Mass and their laymen to acquire land in England. A start was made and all was peaceful until the battalions reached Westminster. There they appear to have gone mad. If the soldiery had not been called out they would have sacked London. As it was the capital was in a state of turmoil for days, chapels and private houses were burned, peaceful citizens were assaulted and prison doors were flung open. Gordon, the leader, was put in the Tower. A few years afterwards he embraced the Jewish faith and soon afterwards died the death of a crazy bigot.

At this point the waitress, a vulgar young woman, approached Clayson with the bill and called him "Daddy." We hastened to the street and "Daddy" emerged a little later—a poorer and a sadder man. A re-united family now moved towards the clock tower which the ignorant regard as the Obelisk but which gives itself away by displaying the date—1905.

Back to Dickens.

Cheeseman wondered whether I would agree that it was near here, Obelisk or no Obelisk, that David Copperfield was robbed, and of course I did. The reader will remember that David went looking for someone who would carry his box from Lant Street to the coach office when the poor lad was off to Dover. Here on the spot where we were standing he found "a long-legged young man with an empty donkey cart" who agreed to carry the goods "for a tanner." The young man not only disappeared with the box but went off with David's half-guinea too. Somewhere here Dickens had to report himself to an official from time to time while his father was in the Marshalsea. "With a strong smell of beer upon him" the official appraiser looked at the lad and judged whether his possessions were were worth £20 and then sent him back to his miserable quarters.

We were all much too learned on this occasion and in order to break the tension I approached a policeman. "Constable," I said, "be a good fellow and direct me to the Obelisk." The policeman fell into the Cheeseman blunder and I corrected him. Then, pointing to a public house at the corner of Lambeth Road, he said, "You mean the Obelisk Tavern?" That was hurtful. I explained to him that I was a clergyman of untarnished record, the son of a Strict Baptist, a prominent official of the Mothers' Union, high up in the councils of the G.F.S. and not in the least interested in London taverns. The poor fellow, apologetic and bewildered, said "Jump on the Elephant. . . ." Not waiting to hear the end of the sentence Clayson's knees began to shake and his portly frame seemed in danger of collapse. Just in time to avoid a seizure we pointed out that the constable was only advising us to jump on the Elephant 'bus and to enquire at what Dickens called "that ganglion of roads from Kent and Surrey, and of the streets from the bridges of London centring in the far-famed Elephant." The well favoured friend whose knowledge of the unhappy side of the walls of Bedlam had surprised some of us was not well enough to board a 'bus so we walked down London Road, which leads to the Elephant and Castle. As we were passing the South London Palace on the left-hand side, our Irish comrade told us that, on the site of the music hall, there was built, in 1789, a Roman Catholic chapel which did service for fifty years. Now the work is carried on at St. George's Cathedral, built on St. George's Fields.

The Elephant.

Very soon the "ganglion of roads" stood before us and with great bravery we made for the Elephant and Castle. There is a theory abroad that this hostelry is of very

ancient foundation, but this is laughed at by the authorities. They tell us that the neighbourhood was a waste until 1673 and that the name "Elephant" was not given to an inn here until 1797. There is evidence for this and we must bow, yet I am not convinced. I imagine that there was an inn of some kind here in the days when Shakespeare played at the theatre at Newington Butts. In *Twelfth Night* Antonio tells Sebastian: "*In the south suburbs, at the Elephant is best to lodge.*" It is argued that this Elephant was on Bankside, near the Globe, but Southwark while being technically sub-urban in 1599 was more or less of the town while the present site of the Elephant was a mile away and on the outskirts of South Lnodon. Alas, we shall never know the truth but I have an intuition that somewhere here, in the real suburbs, there stood an inn of this name.

By this time we were in the throes of weariness and brain fag. We had all contributed to the font of wisdom and all met with keen disappointment. The object of our quest seemed as far off as ever. Within the modern Elephant the electric lights were enticing thither the unstable. As Chairman, I asked whether we should proceed with the search. The members seized this opportunity to return to their bachelor quarters and I am bound once more to ask the Sister of Stephen to persevere yet another month. She will be in good company in January, for thousands of new readers are going to take the Gazette.

The Niggers.

NEXT Thursday, when most good Christians will be celebrating the greatest festival of their religion by the ceremonial eating of large quantities of food—a method of celebration usual to all great events, calling for joy, grief, mirth or sorrow—the lives of our long-suffering patients will be made miserable by the incursion into the wards of a troupe of highly decorative young men, known to the initiated as the "Niggers." They will not be of the usual fashionable "nigger brown," but will endeavour to hide their identities beneath the motley of clowns, gamps, sailors, chinamen and nondescript persons and, as usual with birds of bright plumage, their voices will be horrible. Their object will be fully made clear in the first two lines of their opening chorus, when they will sing that they've

"Come to add a headache to your other
Christmas woes
As the Residents of 1924."

ARTHUR DUNNAGE,
GUY'S NIGGERS, 1869.

This barbarous practice of paying out the patients each Christmas Day, is an old one, dating from the year 1869, fifty-five years ago, and we are delighted to have had the following note from Dr. W. Bramley Taylor, who writes:—

"I was a member of the first Nigger Concert, that was given in the old Out-Patients' Department in 1869. We all had black faces and I remember what an awful business it was to get all the *burnt cork and beer,* of which the mixture was made. I have found in my collection of curiosities a portrait of the 'tambourine' man, Arthur Dunnage, which you can keep if it is of any interest. I forget who played the bones."

The Niggers no longer paint themselves with that curious mixture, although beer is still used throughout their performance, but they still enjoy their Christmas as much as ever and hope, rather forlornly, that some of their audiences enjoy them.

Ante-Christmas Fun for the Babies.

I.—*From the Grown-Up's Point of View.*

LAST Wednesday, December 17th, a special entertainment was arranged for the small patients of Guy's Hospital by the kindness of the Gramophone Company, Ltd., who presented a gramophone and records to the Baby Ward, Mr. Jack Hilton, who brought his excellent band to add music to the morning's festivities, and the Gaumont Company, who sent down a special operator to record them on a film for the benefit of the general picture-going public.

The programme started at ten-thirty with the incursion of large numbers of Press Photographers, who arrived early in order to miss nothing, and with them came a lorry and giant arc-lights, which were forthwith put up in the Baby Ward. I have never seen such big searchlights before, and the beams of light, which they blazed through the ward, were reflected from the many glass baubles hanging on the Christmas Tree growing at the other end.

When everything was ready the lights were turned on, and the babies began to cry, but some of the tears were dried when Father Christmas appeared from behind the Christmas Tree, wheeling a trolley loaded with Christmas stockings and toys, in the centre of which was the gramophone presented by the Gramophone Company.

Sister Babies, a born actress, who obviously has a great future before her on the films, went to meet him, and smiling they walked up the ward, presenting toys to the occupant of each cot. This presentation was done very naturally, despite the fact that the whole time the principal characters were being instructed by the man in charge of the camera, who carried on this sort of one-sided conversation:—

"All right—that's quite enough of that. Now take the gramophone. Put it on the table and

"JOLLITY AT GUY'S."

(By kind permission of the "Daily Mirror.")

set it going. What? It won't go? All right. Let it alone. Come over here and give each child a stocking, and do try not to let them cry." All this must have been extremely trying to anyone unused to understudying Mrs. Fairbanks.

At last they came to the little group of children round the fire, who had been collected from other wards in the Hospital, and toys were distributed to them. This was really the first part that the children had enjoyed, and their disappointment was great when, on the slippery linoleum, the legs spread themselves out like the legs of a star-fish, letting the camera down with a bang.

While this entertainment was concluding, Mr. Jack Hilton's band arrived in the Quadrangle, and was surrounded by a group of festive students. These, suitably arrayed in coloured paper hats, on which was written the Christmas motto "Ogo Pogo," stormed the Colonnade. Happening to walk towards the Colonnade, one of the band approached me and said, "Have you seen a saxophone?" to which

THE BEST PART OF THE PARTY.

(By kind permission of the "Daily Graphic.")

the searchlights having been extinguished, the toys were immediately taken away again—to be re-presented for the benefit of the Press Photographers. These gentlemen then took very many snapshots of repeated presentations, and one of them I regret to say disturbed a "prop."—in other words, a rocking-horse—doing great damage to the superimposition of the cinematograph film. (This is a technical term known only to us journalists.)

One photographer pleased everybody very much when, on placing his tall tripod camera I replied quite truthfully that we didn't use them on the medical side, and referred him to Sister Theatres.

The band arrived and received a great ovation at the Baby Ward, not by the Babies, but all the same a great ovation. They played a few tunes, had their photograph taken, and marched back to board their bus for home; but, before they left, Mr. Jack Hilton promised to provide a band for this year's Out-Patient Dance, for which generous promise we are all very grateful.

The whole ceremony was extremely successful, and the London public will undoubtedly appreciate the latest great cinematograph comedy. The small boy who wanted to know why he had been taken down to the Baby Ward, was severely reprimanded for not knowing that it was a party.

II.—*From the Babies' point of View.*

Nursie dressed me up in my best clothes, which always makes me nervous, and I was carried down into a new ward, with lots of other girls and boys. We were told it was going to be a nice party, but a lot of funny men, who hadn't been asked, came in with two great big round things and we all ran to the other end of the room. The men kept playing with these big toys until, all of a sudden, something happened and they all went bright, and, as we didn't know what it was, we started to cry. Nursie said it was all right, but she looked frightened too.

Then they made us all sit down on chairs and watch the Christmas tree, and Father Christmas came out and gave us all toys, and just as we were going to play with them, they took them all away again, so we all cried again. Then the light went out, and they gave us back our toys.

After this so many people came into the ward that there was not much room for us, and they all had funny trumpets and things, and made such a noise that we had to keep on crying or they would have forgotten we were there.

We stayed there ever so long, and were very tired and wanted our dinners, when all the men began shouting and went away again, and Nurse said that the party was over. It was quite the silliest party you ever saw.

A Case of Hay Fever and Idiosyncrasy to Certain Fish Foods Relieved by Vaccines.

THE case which I am about to describe appears to me to present several features of interest. I have used the title "Hay Fever" to mean a condition defined by St. Clair Thompson as "Intermittent Engorgement of the nasal mucous membrane, associated with a free discharge of dilute mucus, frequently with paroxysmal sneezing and suffusion of the eyes, and sometimes with asthma." In using this nomenclature a cause is postulated which is not always present as in this case where its effect is probably very slight.

W— K—, aged 30, a hospital sister, first came under my notice suffering from a condition of hay fever. She stated that her father suffered from asthma, but no other members of her family had suffered from it nor any allied condition. At the age of about 8 years she remembers suffering from a severe attack of giant urticaria shortly after her evening meal, but cannot remember what was the nature of the meal. About six years ago she began to suffer from attacks of asthma associated with epigastric pain. The face used to become swollen and the eyes became suffused. There was no urticaria or gastro-intestinal disturbance. After a time the patient connected these attacks with the eating of such fish as schnapper, moki, barracouta, but never had an attack after eating tinned fish or after eating flounders or soles. She noticed then that the attacks used to commence about an hour after eating fish, and used to last two or three hours before she was completely free from symptoms. Plants, so far as she knew at that time, did not affect her. On ceasing to eat fish patient remained free from attacks. About two years ago she developed typical attacks of hay fever for which she could find no cause. These used to occur every three or four days, lasting about 24 hours, during which time she felt very ill. The only relief she could obtain was to go to bed in a darkened room, as the light seemed to make her attacks worse. The day following the attacks she felt a "perfect wreck."

On March 5th, the patient was given a first injection of anti-typhoid serum while nursing infectious cases. This caused a severe occipital headache and a feeling of considerable malaise with stiffness and shooting pains in all her joints on the following day. The next injection, 10 days later, caused no symptoms beyond a feeling of malaise. Following these injections there was no attack of hay fever for two or three months.

About a year ago, at the commencement of an epidemic of influenza, I gave all the staff a prophylactic injection of a mixed vaccine containing 50 million of each of the following organisms—influenza bacilli, B. coryzæ, pneumococcus, streptococcus, and micrococcus catarrhalis. The initial dose was ½ c.c., followed later by 1 c.c.

This nurse happened to have a slight attack of sneezing and I gave her ¼ c.c. only. Within an hour the patient developed the worst attack of sneezing from which she had ever suffered, the effects of which lasted several days. About 10 days later I gave her another injection of ½ c.c. and this again caused an attack, but not so severe. Acting on this I gave the patient gradually increasing doses at intervals of 4 or 5 days of this mixed vaccine. I commenced with about 5 million and over a period of 4 months increased the dose to the equivalent of 15 c.c. of the original mixture. During the course of this treatment patient had on two occasions a sneezing attack, but without its concomitants of rhinorrhœa or suffusion of the eyes; one attack was shortly after the commencement of treatment, and the next attack on a windy day towards the conclusion of it.

Since this treatment has ceased she has had no more attacks, except on one occasion, when on her

annual holiday she stayed at a house surrounded by fields of lucerne (medicago sativa), which at the time was in full flower. She is convinced that the pollen in this case was the cause of her trouble.

Following on this course of treatment I told the patient to eat the fish which had previously caused her trouble in gradually increasing amounts, and she found she was able to do so without any trouble. Since then the patient has been in excellent health until recently, when she developed some abdominal trouble.

On examination of her nose there is some deviation of the septum but no obstruction. There were no "sensitive spots."

It seems probable that the injections of the anti-typhoid serum may have conferred on her some immunity which prevented the attacks of hay fever for two or three months, and that the later treatment with the fixed vaccine has conferred almost complete immunity. It is an interesting fact that has been recorded on many occasions that the injection of one type of protein will immunise a patient against other proteins—in this case against a certain variety of fish protein, as well as conferring on her an immunity against her hay fever attacks. It is certainly remarkable that the eating of any tinned fish had no effect at all, possibly due to some alteration in the protein as a result of the treatment to which it had been subjected. The other remarkable feature is that only certain types of the coarser fish caused symptoms. It would seem that some special protein was involved.

Since writing the above notes the patient has had a slight return of her hay fever attacks, but a few doses of the vaccine have again relieved her.

J. ALLEN BERRY.

Correspondence.

"Coin-catchers and Probangs."

SIR,—In your review of the excellent book on Diseases of the Nose, Throat and Ear, written by the Staff of the Edinburgh Throat Clinic and edited by Dr. A. Logan Turner, you use the following words: "The remark that the coin-catcher and probang bougie are now things of the past is more an expression of idealism than of fact. Many half-pennies are still brought back into circulation by these means in the Out-Patient Departments and Surgeries of our hospitals and very few accidents are reported. I have heard of none."

I am not quite clear whether you approve of the teaching in this book or not, but that your readers may understand that this is now the accepted teaching with regard to foreign bodies, I would draw your attention to an extract from a review by Mr. Mollison on the same work in the *Journal of Laryngology and Otology*, for October, 1924:—

"It is refreshing to find a section devoted to the subject of peroral Endoscopy; since this is a text-book for students, the section is naturally short, but admirably chosen by Dr. Ewart Martin. The statement that the 'coin-catcher and probang bougie are now things of the past' will have the approbation of all endoscopists."

The words quoted appear on page 222 of the book, and are followed by these words: "these instruments were devised for the blind removal of foreign bodies from the œsophagus, and they proved more often fatal than the foreign body for the removal of which they were intended, as they readily damaged the œsophagus." The following expression is found on page 232: "In no circumstances should there be any attempt at blind removal with a coin-catcher or umbrella probang."

As it is possibly my teaching which has resulted in the modern accepted view of the laryngologist not being carried out in the Out-Patient Department and Surgeries of our Hospital, I should like space in the GAZETTE to put forward my views.

In all these extracts it may be noted that the coin-catcher and the probang bougie are associated. Let us start by dissociating the two one from the other and discussing each on its own merits. I am heartily in accord with my fellow laryngologists so far as the probang bougie is concerned. I am willing to admit that fish bones have been brought up by it, and I used it frequently as a dresser and a house surgeon to push down the throats of young women who were I thought hysterical. I believe, however, that so far as this instrument is concerned Mr. Ewart Martin's assertion as to the fatalities caused by it may be correct. So long as a foreign body in the œsophagus has not given rise to any infection of the sub-mucous tissue it may remain there for years without causing any harm; but the moment that the sub-mucous tissue becomes infected the mediastinal cellular tissue is in danger and an infection of this is more deadly even than the infection of the pelvic cellular tissue. There is a distinct danger with the probang that the point of a fish bone or other sharp foreign body may be pushed through the mucous membrane into the sub-mucous or mediastinal tissue, thus infecting the latter and, even if the foreign body is removed, causing the patient's death. I would go so far as to say that when a medical man removes a fish bone or other foreign body from the œsophagus with the probang it is due to his luck rather than to his skill that the patient survives.

But with the coin-catcher the matter is entirely different. You say that you have heard of no accidents from attempts to remove half-pennies with the coin-catcher. I know of one which *may* be due to the use of this instrument. It is to be found recorded in a paper written by Dr. Irwin Moore in the *Lancet* for September, 1919, and entitled "Foreign Bodies in the Œsophagus and Respiratory Passages. Remarks on the dangers arising from their impaction and some difficulties which may be met with in their removal. A plea for the abolition of the coin-catcher, the blind use of the bougie and probang, and their replacement by the direct endoscopic methods of extraction."

You will see that Dr. Irwin Moore, like other writers, mixes up the coin-catcher and the probang. After the title no more is heard of the probang in

his paper, which consists of a series of tragedies resulting, as Dr. Irwin Moore says, from the use of the coin-catcher, but, as I would put it, from the mis-use of the same. Thus he records that on a certain occasion at a country hospital the bolt which fixed the end of the coin-catcher on to the whalebone handle was rusted through and allowed the end of the coin-catcher to tumble down into the stomach whence it had to be removed by gastrostomy. He has no right to claim this as a fatality due to the use of this instrument. It is merely an example that the instrument which is seldom used will wear out quicker than one which is frequently in use, and it is no more right to argue that therefore the coin-catcher should never be used again than it would be right to argue that surgeons should give up artery forceps because one has been known to be left in the abdomen. To all his cases the same criticism may be applied with the possible exception of one in which, while being removed with the coin-catcher a half-penny had become impacted against the lower margin of the cricoid cartilage and had there caused ulceration of the mucous membrane which led to death. Even in this case it may have been that excessive force was used, rather than that the instrument itself caused the tragedy. Except for this doubtful case, I, like you, know of no accidents caused by the proper use of the coin-catcher.

Now let us consider what should be our teaching to men who are going out into general practice, with regard to this subject.

We may start by saying that by "treatment" we do not mean the ideal thing which would be done by the most expert person under the most favourable conditions, but the right thing to do for the pathological lesion in the patient before one under the conditions in which one has to work.

Mr. Ewart Martin writes as follows on page 216: "The armamentarium required for such examination is necessarily large, and its employment is practically impossible for the general practitioner. It entails constant practice, which can only be obtained in special hospitals, or in a special department of a general hospital. In the hands of the specialist, however, peroral endoscopy has a wide and important field. . . Although its actual practice is beyond the scope of the general practitioner, the conditions, with their signs and symptoms, which call for its use should be known to him." Now it is clear from this extract that in his opinion every single child who swallows a half-penny must be sent into some centre of laryngological activity, in order that this coin may be removed by the expert with his "armamentarium." But many of the students whom I have to teach are going to practise in parts of the world where it will be impossible for them to do this. We have at Guy's students from South Africa who are going to practise in Rhodesia; students from Canada who may go out to Alberta or Saskatchewan. Even general practitioners in the mountains of Wales may not be able to send their patients to Cardiff or to Manchester, while it is possible that Mr. Ewart Martin is himself teaching students who will ultimately work in the Outer Hebrides. Other men may meet with a similar emergency in the middle of the Atlantic or cruising in the Eastern seas. Are we going to urge each one of these people to go to the expense of this "armamentarium" in order that they may remove the occasional half-penny that may come their way? We can, however, advise them to include a coin-catcher in their equipment if we feel that it is an instrument that is of value when properly used.

Accordingly, it has been my practice for the last five years, whenever a child with a half-penny in the œsophagus has been brought to my Department, to teach one of my dressers how to remove it with the coin-catcher in the following way:—

1. The instrument is carefully examined to see that it is in a proper condition.
2. The child is laid flat on its back with a blanket wrapped round its body and arms in the same way as is done when performing tracheotomy.
3. A gag is put in the left side of the child's mouth and the head held firm by an assistant (who need have no previous experience) standing behind it.
4. The coin-catcher is passed down by the student and brought back until the coin is engaged.
5. Sufficient tension is put on the instrument just to hold it, but not to remove the coin.
6. The child is released and allowed to struggle, when it will be found that in these struggles the coin is brought up into the mouth.

I have found this method so uniformly successful that I have no hesitation in continuing to recommend it to men going into practice. On no account must undue force or clumsiness be used, but this rule applies to any instrument used in any part of the body and is not an argument against any particular form of instrument.

A few weeks ago I saw a case in my private practice, and I thought then that if I am teaching students how to remove half-pennies from the œsophagus by a method which is both rapid and safe and involves the minimum of unpleasantness, why must I use another just because I am a specialist? and I removed this coin in the same way as I have taught my students to remove theirs.

It has been suggested to me that this is a dangerous method to use as soon as ulceration has occurred, and Mr. Kendall had a case in which death from ulceration of the œsophagus occurred within 48 hours of the child swallowing the half-penny. When ulceration of the mucous membrane occurs it is the ulceration which is dangerous, and the removal of the foreign body must be an anxiety, whatever method of removal is used. The principle in such a case must be that the method involves the minimum trauma to the mucous membrane. The most expert peroral endoscopist might cause less trauma by the passage of his tube and forceps than he would ulceration of the œsophagas occurred within 48 by the passage of a coin-catcher. I am confident that the general practitioner or general surgeon, even in a case where there is ulceration would cause less trauma with the coin-catcher than he would by attempting to use instruments in the exercise of which he was not expert, and I think he would be justified in making one attempt to remove that coin with the coin-catcher before resorting to the more special instruments.

Let it be understood that I refer here only to coins in the œsophagus. I have heard recently of two attempts in the surgery to remove other foreign bodies

with the coin-catcher. One was that of a button, and it was successfully removed. I think that with such a foreign body as this a very gentle attempt with the coin-catcher might be legitimate in a far country, but if it did not come up on the very first occasion, no further attempts should be made. The other was that of the core of an apple reported to be stuck in the throat of a small child. In this case the foreign body did not come up and the child was brought to me with the history that it was unable to swallow anything. On admitting it into the ward this was proved not to be so, and within 24 hours the child was quite well. I do not think this attempt should have been made. If the core of an apple was stuck, one of the sharp bits might have been driven into the mucous membrane by the instrument.

To sum up, as the result of the last five years' work, I disagree with Mr. Ewart Martin, with Mr. Mollison, and with Dr. Irwin Moore that the coin-catcher should never be used. I advocate its use on the understanding that it be only for those things for which it was devised, i.e., coins, and that when employing the instrument the same precautions should be taken as with any other, namely, to use it with care and with gentleness.—Yours truly,

T. B. LAYTON.

London, W.1.
5th December, 1924.

Reviews.

General.

Guy's Hospital Reports. Vol. 74. (Vol. 4. Fourth Series.) Published by Messrs. Wakley & Sons (1912), Ltd., London. *Price* 12*s.* 6*d. net.*

THE last number of Volume 74 of the *Guy's Hospital Reports* is entirely medical and biological in character. An article on the Pathogenesis of Gastric and Duodenal Ulcer by the Editor, Dr. A. F. Hurst, discusses the factors of acid, infection and irritation and, as accessory factors, tobacco, suprarenal exhaustion and unmasticated food in the causation of ulcers, while a further article, well illustrated by X-ray photographs, is given by the same author in conjunction with Mr. P. J. Briggs on "Diverticula of the Stomach: A Possible source of error in the radiological diagnosis of gastric ulcer." Dr. C. P. Symonds and Mr. N. L. Eckhoff discuss a case of Supra-Pituitary Tumour associated with Fröhlich's Syndrome, and comment upon the functions commonly ascribed to the Pituitary Body. They show good reasons why a careful microscopic examination of that gland should always be made post-mortem, in cases of "so-called hypopituitarism." Mr. Ormond and Mr. R. G. Williams report a case of Arachnodactyly with special reference to the ocular symptoms, the case being one that has appeared before the Pediatric Section of the Royal Society of Medicine, where it aroused great interest. Dr. J. J. Conybeare and Mr. G. C. Millis report on some observations made on twenty-nine cases of Addison's disease, treated in Guy's Hospital between the years 1904 and 1923. Dr. N. L. Lloyd reports an uncommon case of Methœmoglobinæmia, with references to other reported cases, and Dr. W. L. Watt describes his technique in deep X-ray therapy. Some interesting cases from "Clinical," an "Experimental study of Leptothrix Buccalis," by Dr. B. Bulleid, and a report on "Rarefying alveolar osteitis due to Streptococcus Pyogenes Longus (var. Viridans)," by Dr. J. Eyre, complete a number, well up to the usual standard in interest and information.

Sport.

Rugby.

Guy's v. Richmond.

SATURDAY, December 6th, was a glorious afternoon for football. With the ground in grand condition at the Richmond Athletic enclosure, Guy's beat Richmond by 1 goal and 1 try to 1 goal, or 8 points to 5 points, and thus we find that according to a contemporary, having now beaten Harlequins, Blackheath, London Scottish and Richmond we are the strongest Club in London. That's a great deal, yet the same writer says we were rather fortunate to win because Sir John Napier was off the field for a considerable portion of the game. One doesn't want to take sides unduly, but surely the absence of the player did not make all that difference, we were without Cameron for a good deal of the game, and the Richmond line had some escapes that looked as though fortune was indeed with them.

Guy's opened well and went off without hesitation. Fellowes-Smith, playing in the centre, was in his very best form, both in defence and in attack. Richmond took longer to settle down; when they did, they got the ball more often than ourselves, their hooking being cleaner. Our scrum has improved mightily, but not yet do all the eight work hard enough. When we got the ball, Hops did some extraordinary low passing, almost along the the ground. Preen repeatedly took them off his toes. Hops is sound and plucky in defence, but one wishes he would send out more smartly. When Preen did get his chance he cut through beautifully and sent out to Fellowes-Smith, who scored an unconverted try. Several times Richmond got near our line, their passing being very good. Wayte at fly half, was always doing something. Once it looked as though they must score on the right, but something went wrong. Finnemore was hesitating far too much, instead of going for the man with the ball. The try, however, came on the left wing from G. V. Palmer, who ran very strongly and grounded favor-

ably for Richardson to convert. Fellowes-Smith had the hardest of luck just after, he cleared to the full back very cleverly, punted on and at a great pace was passing Evan-Thomas when he stumbled and fell. A try looked certain. Just after this one of those typical runs of Van Schalkwijk's saw the field almost left behind and a good pass to Fellowes-Smith enabled that player to score. The Guy's Captain converted.

There the first half and the scoring ends. Richmond made great efforts to score again. They had a jolly good pack and Spence had a busy time. Some of his fielding was admirable. Evan-Thomas was at full back for Richmond, and he played well too. He looked in for it once, waiting for the bounce, as he got the ball late and two Guy's men were on top of him, but his hand-off was very powerful and his clearance good. Fellowes-Smith might have made more use of Leslie, who played a good game. He never shirks in defence and it was a pity that he was not used more in attack. During the last ten minutes Guy's tried every way possible to pierce the defence. Van Schalkwijk made a great run through, to be caught on the line and Leslie did his best to beat Palmer. The forwards to a man played in top form. Holloway has never done better. Myburgh also did no end of good work. Then came a lightning dart through by Preen. At a great pace he went through, but Richardson stopped him. He passed well and Schabort took the ball well, to plant it over the line, but the pass had been a forward one.

In conclusion may one say that Mr. T. A. Vile refereed the game in such a way as to make the play most enjoyable, though all the time his rulings were extremely prompt and his control perfect.

Guy's Team—P. D. B. Spence; H. W. Leslie, G. Fellowes-Smith, J. G. Van Schalkwijk, J. W. Finnemore; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, N. M. Holloway, E. E. Neser, G. G. Cameron, J. W. Schabort, E. W. Hutchinson, W. H. Myburgh.

Guy's v. Aberavon.

ONLY a moderate crowd turned up at Honor Oak Park on Saturday, December 13th, when Aberavon were the visitors. This was a little surprising as Guy's had done well in their recent matches and Aberavon are one of the best of the Welsh teams. Counter attractions at Twickenham and Blackheath may have drawn some regular followers away, but no true Guy's man could possibly think any team but the Hospital one a sufficient bait to tempt him to forsake even for a day the home ground.

Both had strong sides out and a rare hard game ensued, the tackling was literally tremendous, and the pace a very hot one right to the end. The Hospital played exceedingly well right from the beginning and early established a footing in the visitors "25." There were a couple of great runs by Clarke on the left, but he couldn't quite beat Williams. Graham-Davies had a good break through but was heavily tackled. Aberavon rushed strongly to the centre, where footwork got past Spence, but Scholefield saved the situation. Hops doesn't yet pitch them out quick or high enough. His defence though was splendid. Guy's got on the move and Van Schalkwijk punted to the corner, Fellowes-Smith with great dash rushed up and gained a try, Neser's kick at goal failing. Then came some pretty passing between Preen and Van Schalkwijk. The defence of Aberavon though was very sound and their threequarters covered our men perfectly. No movement was very much developed ere an opponent or sometimes two, captured the runner. At half-time we still led by a try, having had a great deal of the game and much of the ball.

The second portion of the game found the opposing pack the stronger, their pace in the follow up was a strong feature and any mistake or fumble was instantly pounced on. The equalising try came from Rowlands on the wing, who received a long pass and managed to slip over by the corner flag. With renewed dash Guy's returned to the fray, but at this time they were up against a very fit team and Aberavon's pack were as virile and strong at this stage of the game as at the commencement. But now when we got the ball, there was so much of the punt and so little passing, that the wingmen were almost neglected. Clarke had early shown such promise and Fellowes-Smith is now at his best, that our tactics in this persistent short passing seemed to be wrong. Preen is a great fly half and with straight running centres and fast men on the wings we ought to gain more points. The winning score was gained in a scramble on the line, J. Jeremy gained it, from the stand he seemed to have been tackled outside It was converted by D. H. Davies. We just missed a long shot at a penalty goal. A high punt and Fellowes-Smith in full cry almost, but not quite, met with success and manfully as we tried, the ever powerful defence kept us out. In all departments of forward play Scholefield was splendid. The newest recruit, Popplewell, will be a very useful man. The whole team are to be congratulated on running such a powerful and active combination as the Aberavon XV. to so close a margin of points. With a little more "devil" in the open the pack will be a great one yet, and Durr in this match, and all through season has by example and precept, done well to make our present eight worthy to be compared with some of its great predecessors. The Cup Ties will soon be on us. Without egotism, we have a very promising team, but victory will only come through the absolute physical fitness of every member of it.

Result.—Aberavon 1 goal 1 try (8 points), Guy's 1 try (3 points).

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, J. G. Van Schalkwijk, H. Graham-Davies, G. Clarke; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, E. E. Neser, N. M. Holloway, J. W. Schabort, W. H. Myburgh, E. W. Hutchinson, J. Popplewell.

Fencing.

Guy's v. Oxford.

4th December, 1924. A Draw.

IT is traditional with the Hospital Foil Team that should any member win his first bout he either wins or loses his subsequent bouts. Contrariwise, if he loses his first bout he either loses or wins his subsequent bouts. This tradition, so firmly rooted in the

history of the team, enabled Oxford to win by 14 bouts to 2, Foy and Scorer being successful in one fight each.

With the epée, however, it is a different matter. There one has the real thing, the weapon of the duello. A series of thrilling encounters produced a draw of 8 points each with perhaps the satisfaction of knowing that a debatable award made in the last fight produced the draw and not a Hospital victory. Foy 3, Housden 3, Silvester 2.

Also—but let's get to the sabre match. Ah! there's a weapon if you like. Your dashing Capitaine clanks down the marble stairs of the Saccharinan Embassy, which State borders on Hysteria, with his sabre trailing behind him, srrr—ink, srr—ink, srr—ink. Dashing fellows, sabre men! Captains Courageous, devils with the women, eh? Guy's 5 points, Oxford 4 points. Scorer 2, Silvester 2, Johnston 1.

United Hospitals Hare & Hounds.

Guy's Hospital v. S. L. H. "A."

THIS was a 5½ miles match, held at West Wickham on Wednesday, December 3rd, and resulted in a win for the Hospitals, by 3 points on the "Varsity" system.

From the rush away at the start, Price established a good lead and was fully 100 yards ahead at the end of 1 mile, with Jago leading the rest, in Indian file. The latter, however, caught Price at 2 miles and then got right away to win comfortably. Meanwhile, Darley, running well, gradually overhauled Price to finish a good 2nd. Chitty managed to split the S.L.H. pack by beating Railton after a hard race.

The result was very encouraging and the Hospitals showed much improved form.

Dr. H. A. Munro very kindly judged the race and O. H. Bellerby laid the trail.

1. M. E. M. Jago (Guy's), 34 mins. 33 secs.
2. W. W. Darley (Bart.'s), 35 mins. 6 secs.
3. H. S. Price (S.L.H.), 35 mins. 34 secs.
4. R. M. Harrison (S.L.H.), 36 mins. 39 secs.
5. J. A. Greener (S.L.H.), 36 mins. 45 secs.
6. J. H. Chitty (Guy's), 37 mins. 9 secs.
7. E. P. Railton (S.L.H.), 37 mins. 11 secs.
8. L. K. Wills (Guy's), 37 mins. 50 secs.
9. D. C. Drake (Guy's), 37 mins. 51 secs.
10. H. N. Walker (Bart.'s), 38 mins. 10 secs.
11. G. D. Innes (S.L.H.), 38 mins. 12 secs.
12. W. D. Jones (Guy's), 38 mins. 35 secs.
13. J. W. Storey (U.C.H.), 39 mins. 30 secs.
14. G. B. Curtis (S.L.H.), 40 mins. 15 secs.
15. J. E. Snow (Bart.'s), 41 mins.
16. M. J. Hill (S.L.H.), 42 mins. 25 secs.
17. C. S. Wise (Bart.'s), (Injured his foot).

1. U.H.H. & H.—1, 2, 6, 8 and 9=26 points.
2. S.L.H.—3, 4, 5, 7 and 10=29 points.

Golf.

ON November 11th, by the kind arrangement of Mr. Hooper, a golf match was played between the Dental Staff and Dental Students, on the Foxgrave Golf Course, Beckenham.

The Students only just managed to win. Altogether it was a very enjoyable day for all concerned; the only regret being that these matches cannot take place more frequently.

SINGLES.

G. W. Gathergood (½)	0	Mr. Malleson (½) ...	0
H. E. Edney (4 & 3)...	1	Mr. McAlpin	0
A. E. MacLagen (1 up)	1	Mr. Hooper	0
C. M. Veysey	0	Mr. Pearce (5 & 4) ...	1
W. L. Benson ...	0	Mr. Stuart Smith (3 & 2)	1
I. E. Buxton (5 & 4) ...	1	Mr. Kelsey Fry ...	0
	3		2

FORESOMES.

Gathergood & Edney (5 & 4)	1	Messrs. McAlpin & Kelsey Fry	0
MacLagen & Benson	0	Messrs. Hooper & Stuart Smith (6 & 5)	1
	1		1

Result.—Students, 4. Staff, 3.

Hospital Information, etc.

Pass List.

L.D.S.

E. J. Andreka.
N. J. Boulton.
W. G. Bradbeer.
R. G. C. Broadbridge.
H. B. M. Cahill.
A. E. Cave.
E. Crocker.
R. L. Denny.
G. W. Dibble.
P. Droomer.
S. W. Goodson.
M. B. Goolding.
E. M. Harries.
R. R. Haddow.
M. C. Hart.
G. H. Leatherman.
I. Lipschitz.
F. T. Lowein.
A. C. Luck.
S. A. McLaren.
E. H. Marshall.
W. H. Meissner.
W. Nicholls.
E. G. Parsons.
A. Perkins.
L. G. Pickett.
H. M. Pimm.
F. St. J. Powley.
T. N. Price.
O. J. Sidi.
J. P. Hartman.
N. M. Holloway.
J. Hull.
A. C. Kempe.
H. B. Kidner.
W. H. C. Lean.
H. E. Spencer-Payne.
G. F. Swales.
R. A. Tran.
W. F. C. Tucker.
L. Weinberg.
G. V. L. Williams.

The above are now qualified.

Part I.

W. J. Badenhorst.
I. A. Barlow.
L. Cowlishaw.
J. W. Finnemore.
H. A. Gillett.
W. L. Head.
W. E. Herbert.
D. Kelvin-Davies.
W. R. Rowland-Hill.
C. H. Edney.
F. H. Chapple.
T. S. Davidson.
de W. Vorster.
S. R. Howcroft.
A. E. MacLagan.
F. D. Manners.
L. A. Steel.
H. H. Revill.

University of London.

3rd Examination (M.B. B.S.) for Medical Degrees.

October, 1924.

C. Ive. P. McG. Moffatt.

Group I.

H. G. Close. E. E. Neser.

Group II.

T. S. Blacklidge. J. C. Hewetson.
R. Brooke. L. G. Housden.
S. C. M. Davison. N. L. Lloyd.

Society of Apothecaries of London.

Surgery.

*A. J. Fraser.

*Has now completed the examination.

Guy's Hospital Chapel.

Monday, December 22nd—
Preparation for Christmas Communion, 9.15 p.m.
Christmas Day—
Holy Communion, 6.15, 7 and 8.45 a.m. (Offerings for Guy's Hospital Maternity Samaritan Fund).
St. Stephen (December 26)—
Holy Communion, 7 a.m.
St. John the Evangelist (December 27)—
Holy Communion, 7 a.m.
The Holy Innocents (December 28)—
Holy Communion, 7 a.m.
The Circumcision (January 1)—
Holy Communion, 7 a.m.
The Epiphany (January 6) (Bicentenary of Guy's Hospital)—
Holy Communion, 7 and 8.45 a.m. (Offerings for the Bicentenary Appeal Fund).
Commemoration Service, 12 noon. (In Southwark Cathedral).

J. B. HALDANE, Chaplain.
A. G. HARRIS, Acting Chaplain.

Blues Committee.

THE recommendation from the Blue's Committee that Blues and Half Blues be awarded to the following gentlemen for the year 1924, has been approved by the Council of the Clubs' Union:—

Cricket—
Full Blues.—E. J. Pye-Smith, A. G. Ensor, J. Durr, L. Catchpole.
Half Blues.—G. H. Curtis, G. Fellowes-Smith, S. R. Trick, V. R. Estment.

Swimming—
Full Blues.—L. Brown, F. R. Dingle, S. E. Theis.
Half Blues.—C. E. M. de Gruchy, J. Jones.

Tennis—
Full Blues.—D. Lurie, W. Boyle.
Half Blues.—A. A. Musgrove, L. P. Tupling, A. H. Russell, H. Durrans, V. Ratnagar, D. A. Newbery.

Golf—
Half Blues.—E. J. Pye-Smith, J. L. Glover, G. W. Gathergood, J. A. Vernon.

Notice.

THE Guy's Hospital Dental Society will hold the 26th Annual Dinner at the Trocadero Restaurant on February 21st, 1925. This year the tickets are to be 12s. 6d. each, a considerable reduction compared with last year, so great a reduction that the Committee will be faced with certain ruin if they do not receive the generous support they have learned to expect from Guy's men past and present. It is not our place to preach duty, but it is felt that the dinner would have received more support, than it actually did, last year, if the tickets had been less expensive.

The date corresponds with that of the last home match at H.O.P., against Plymouth Albion, so that there will be a double inducement to old Guy's men to come to town on that day; in the first place to cheer the Hospital team once more to victory, and secondly to meet old pals, and refresh their tired bodies in the good old English way.

Circulars are now being printed, but please make a note of the date and keep it free, February 21st.

Change of Address.

P. L. Richardson, East Suffolk and Ipswich Hospital, Ipswich.

Dr. C. W. Woolloton Baxter, Hazlewood, Hazlewood Lane, N.13. 'Phone: Palmers Green 38.

J. J. Conybeare, M.D., c/o The Rockefeller Foundation, 61, Broadway, New York.

Dr. W. J. Henson, 3, Derby Street, Mayfair, W.

Birth.

STALLMAN.—On October 5th, 1924, at 8, Kinfauns Road, S.W.2., Mary (née Galavan), wife of J. F. H. Stallman, F.R.C.S., of 125, Harley Street, W. 1. Twins—a son and daughter.

CORRECTION.

HERBERT.—We much regret that this announcement, which appeared in the GAZETTE, No. 949, November 29th, contained two errors. November 17th should read November 7th, and Blenkain should read Blenkarn.

Marriage.

HOFMEYR—ADAMS.—On Thursday, December 18th, 1924, at Christ Church, Forest Hill, Roland, the second son of His Honour G. R. Hofmeyr, Administrator of S.W. Africa, to Lilian, younger daughter of Mrs. Adams, of Sydenham.

Death.

BEVIS.—On November 25th, 1924, at 64, Kingston Crescent, Portsmouth, in her 32nd year, Ella, dearly loved wife of D. A. Bevis, L.D.S.Eng.

ED.—L. G. H.